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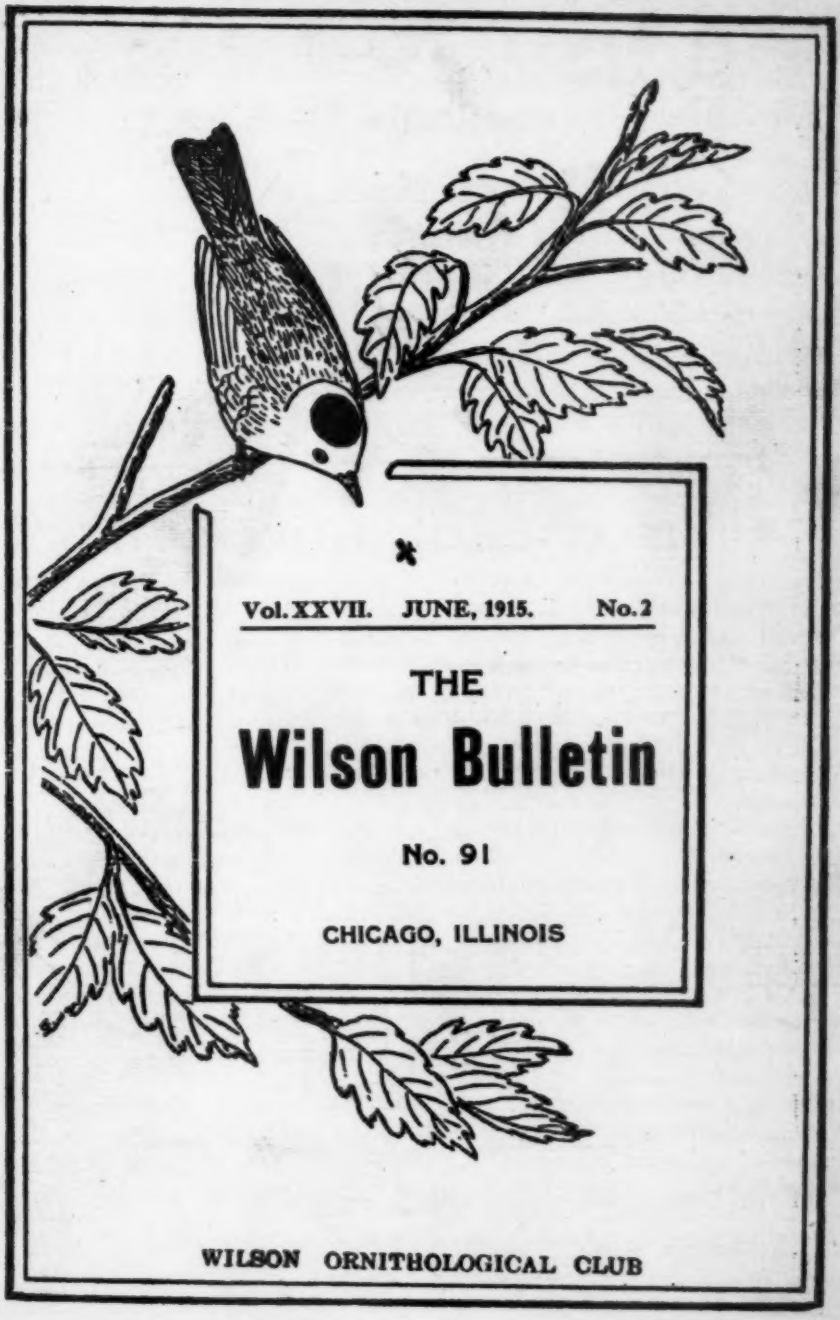

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THE Wilson Bulletin

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WILSON ORNITHOLOGICAL CLUB

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THE WILSON BULLETIN

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THE
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OLD SERIES VOL. XXVII. NEW SERIES VOL. XXII.

NOTES ON THE RED-WINGED BLACKBIRD.

BY IRA N. GABRIELSON.

Just back of Riverview Cemetery at Marshalltown, Iowa, there lies a low, flat pasture through which flows the Iowa River. An old channel of the river winds up behind the cemetery in a long loop and is filled much of the time with stagnant water. Along the banks of the small pond thus formed is a narrow growth of willows with a dense growth of smartweed and nettles between them and the water's edge. Back of the willows is a sparse stand of such trees as elm, soft maple, ash, and box elder.

To this locality my interest was strongly attracted during May by a little band of five pair of Red-winged Blackbirds, *Agelaius phoeniceus phoeniceus*, which seemed inclined to settle there for the summer. They remained through the first half of May and on the nineteenth I found two partially completed nests. May 30 the willows were searched and four nests were found. These contained four, three, one, and no eggs respectively. All were built in small willows from three to six feet from the ground. The last two had been disturbed by small boys as tracks were visible in the soft earth and the bent and broken branches of each tree testified to the attempt to climb it.

The Red-wings were well started on the nesting season

when the very heavy rains of early June flooded the region and destroyed all of the nests. The fifth nest was not discovered until June 27 when on a close examination, a bit of supposed drift material lodged in a small tree was found to be a nest of this species filled with mud, leaves, and sticks. In the bottom two rotten eggs were found. The river remained high for only a few days but the water continued to flow through the old channel until June 25. This converted

Female Brooding.

the region into an island and kept the small boys out. On June 25 I succeeded in crossing to this island and found that the Red-wings had used to good advantage the period of isolation. The old nests were filled with mud and leaves but there were also four new ones containing young just hatched. All of these nests were placed on slightly higher ground than the preceding ones. All were very flimsy and resembled the nest of the Grosbeak more than the usual Red-wing type. One was placed in a willow about six feet from

the ground and contained two nestlings and two eggs. This pair after many trials succeeded in raising all four of their brood. The nest was close to a wagon track leading to a sand pump on the river and the passing of the wagons kept them in a constant state of alarm. The second was placed in a small elm and the four nestlings it contained were successfully reared. The third, in a willow, held one naked young which disappeared the next day. The fourth, containing three nestlings, was chosen for special study. All three nestlings failed to reach the fledgling stage. The fifth pair placed their nest in a dense tangle of willows and vines, thickly grown with nettles (*Urtica sp?*). The growth was so dense that, although I worked my way through the thicket several times, I did not find the nest. These five pairs of Red-wings thus built ten nests and from the nine which were found only eight young were finally brought to a fledgling state. This seems to be an unusually low percentage of increase, at least in my experience.

Approaching with Food.

On the same date (June 25) I found a Rose-breasted Grosbeak's nest and while watching it our attention was drawn to Red-wing nest number four and we erected a blind with the idea of securing some photographs of the parents. While engaged in this we became so interested in the blackbirds that we spent some time watching them. My wife and I did all of the work.

The nest was built in a small elm about two feet from the

Female Alarmed by a Whistle from the Blind.

ground. It was carelessly and coarsely woven and was so thin one could see thru the sides. It was left undisturbed except that enough branches and leaves were removed to allow photographs to be taken. An ordinary umbrella blind was erected at the nest on the afternoon of June 29. The bird was unusually shy and it was not until noon of the thirtieth that we thought it wise to enter the blind. We could watch her actions from the Grosbeak's nest and thus determine the

time at which she became reconciled to the blind. The nestlings were painted with water colors we had been using on lantern slides. Ordinary water colors had been previously tried without much success but the results obtained with these were fairly satisfactory. One of the nestlings had his beak colored a bright red, the second, green, and the third was left a normal color. The startling contrasts in the beaks made it easy to determine which nestling received the food. We spent the afternoon of the thirtieth and all day July 1 watching this nest. We returned on the morning of the second to find a sad state of affairs. One nestling had entirely disappeared, a second was in the nest in a dying condition, and a single torn bloody wing on the ground beneath the nest testified to the fate of the third. The ground about the nest had been trampled hard by our movements in erecting the blind and, although we searched carefully, we could find no evidence betraying the identity of the marauder.

BROODING.

Although this bird apparently never recovered from the fear of the blind the brooding instinct was very strongly developed. On every approach to the nest she uttered continually a single syllabled note of alarm. This note had a harsh metallic ring and has been represented by the word "tchéck." It was accompanied by a jerking of the tail and quick motions of the head from side to side. On leaving the nest she invariably gave a call of several syllables. This call was very peculiar and difficult of description. In spite of her manifest uneasiness at the presence of the blind she spent most of the time, while the sun shone on the nest, in brooding. The position of the blind and the surrounding vegetation exposed the nest to the sun from 8:30 to 10:10 while it was shaded during the remainder of the day. On July 1, the day on which we watched during this period, she spent fifty minutes or exactly one half the time in shading the young while not a minute was so spent at any other time of the day. In shading the young she always assumed the same position with

her head toward the sun and broadside to the blind. One foot was placed on each side of the nest, the beak held wide open, the wings half spread and slightly drooping, and the feathers of the head and back elevated. This resulted in entirely shading the young and is the most perfect development of this brooding position yet noted in an individual bird. All passerine birds which I have watched make some attempt to assume a similar position but only a single one, a female Brown Thrasher, ever approached this Red-wing in the attempt. While on the nest she uttered incessantly the single syllabled alarm note and on leaving always added the other call.

FOOD.

TABLE I. FOOD OF NESTLINGS.

	NESTLING				
FOOD	A	B	C	UNKNOWN	TOTAL
Unidentified	16	7	12	..	35
Moth	7	8	2	2	19
Maybeetle	..	1	..	..	1
Beetle	5	1	..	..	6
Grasshopper	23	26	23	..	72
Spider	3	2	6	..	11
Mayfly	..	..	1	..	1
Measuring worm	2	4	1	..	7
Larvae	7	7	5	..	19
Frog	..	..	1	..	1
Daddy longlegs	1	..	2	..	3
Wire worm, etc	3	6	7	..	16
Cricket	1	..	3	..	4
Fly	..	2	..	..	2
Total	71	66	64	2	203

All feedings were by the female, the male never approaching the nest. The area from which this bird secured food was exceedingly limited. As stated before, the nest was in a small elm just in the edge of the timber which at this point

was from 15 to 20 feet from the edge of the water. Beginning at the water's edge and going towards the nest we found several more or less well defined areas of growth: first, in the edge of the water was a dense growth of arrow-head lilies (*Sagittaria sp?*) in a strip of six or eight feet in width; second, from three to five feet inland was a region of bare earth or a short growth of a sedge of an unknown species; third, a band of smartweed (*Polygonum sp?*); and lastly, a mixed

The Attitude of Inspection.

growth in which nettles (*Urtica sp?*) and burdock (*Arctium sp?*) predominated. This growth touched the nest on one side and on the other was the willow belt. The Red-wing confined her hunting as far as we could determine to the weed growth and particularly to the smartweed and burdock. We never saw her enter the willow thicket to hunt but always found her along the water's edge or in the weeds. The ground was damp and sticky and the region furnished good foraging. Grasshoppers were by far the most abundant forms and the Red-wing took advantage of the fact. Many

of them were of large size and she frequently brought them so large the nestlings could not swallow them. When this happened she crushed them in her beak until they could be devoured. Next to grasshoppers, moths were the most abundant. The majority of those brought were small, dull colored ones but occasionally a large grey or dull white one was seen. Spiders were also common and the most of those

Searching for Excrement.

fed were caught along the shore in the bits of drift wood. Altogether during the 170 feeding visits she brought 203 morsels of food. Of these, grasshoppers were 34.97%, moths 9.37%, larvae 9.35%, unidentified 17.24%, and the remaining 29.09% was composed of various insects. The unidentified were mostly small insects captured among the arrowhead lilies but we could not identify them. A very small frog was

fed on one visit. As far as numbers were concerned the distribution of food to the nestlings was very equal, A receiving 34.97% of the insects fed, B, 32.51%, and C, 31.51%. It is not so easy to estimate the percentage by bulk on account of the varying sizes of the insects fed.

BEHAVIOR OF THE FEMALE.

When at the nest she was at all times alert and any slight sound caused her to raise her head and utter the alarm note. If the noise were continued she hopped nervously away from the nest but returned as soon as it ceased. Fig. 3 was taken just as she raised her head and gave the alarm note in response to a low whistle from the blind. If not disturbed she usually critically inspected the nest after feeding. This position is shown in Fig. 4. In the majority of visits she left after this inspection but whenever she saw anything in the nest which needed attention she dived head foremost among the nestlings (Fig. 5) and probed vigorously. Occasionally this probing was so violent as to shake the whole tree and shove the young out of the nest. Once during this process one of the nestlings was lifted up, thrown over the edge of the nest, and would have fallen to the ground had she not seized him by the leg and pulled him back.

In no instance during the study was the excreta devoured but it was always carried away.

She had a stereotyped method of approaching and leaving the nest. To reach it she flew to a small willow on the opposite side of the nest tree and then hopped to the nest. In leaving she invariably flew straight toward the blind and swung to the left as soon as she was out of the tree.

BEHAVIOR OF THE MALE.

The male was never seen at the nest, but spent his time in the top of a tall willow just behind the blind. While here he often dashed out and snapped up a passing insect in approved flycatcher manner. He spent much time with his wings slightly spread to show the crimson shoulder and singing his "con-qua-ree." The only time he exhibited any interest in

his family was when we approached the blind or at the presence of some other bird. When we came near the blind, he swung out over our heads uttering the whistling note which Nehrling renders "Tii-tii." He ceased this as soon as we disappeared in the blind and resumed his song.

In his relations with his bird neighbors he was far from being friendly. His nearest neighbor was a Rose-breasted Grosbeak which had a nest not twenty-five feet from that of the Red-wing. When not engaged in fighting away other birds, the two males spent much time in fighting each other with the Grosbeak generally victorious. On one occasion a Bronzed Grackle alighted in a willow between the two nests and both males flew at him driving him out of the vicinity. A Catbird and Brown Thrasher had both raised families a short distance away and the young were just out of the nest. Hardly a minute of the day passed but what one could hear the squalling of one of these and the cries of the Red-wing as he drove them away. On the morning when we returned to find the nest destroyed, he was still on guard as bravely and as conspicuously as ever and seemingly undisturbed by the tragedy in his family.

NOTES FROM THE LAURENTIAN HILLS.

YELLOW-BELLIED FLYCATCHER, GOLDEN-CROWNED KINGLET, AND BLACKBURNIAN WARBLER.

BY L. MCI. TERRILL.

Exploring in the Laurentians has all the fascination of fishing for me; one never knows what to expect at the turn of the road, and the road turns often. Though fire has raged in many sections, the rocky and broken nature of the country prevents a continuous burning.

Most uninviting vistas change abruptly; one climbs a burnt hillside — gray boulders and charred stumps peeping through a dense undergrowth of Bracken and Raspberry vines — sur-

mounts the bare rock at the summit and passing through a fringe of evergreens on the downward slope, halts abruptly to gaze on a lakelet set in a dense carpet of Sphagnum moss. The innumerable hollows all have their lakes or brooks. If you are thirsty, the ditch by the roadside usually affords the clearest of spring water. Late in the afternoon of June 29, 1913, having a little leisure before train time, I thought to see what lay beyond the turn of the road in a hitherto unexplored direction. A short walk from St. Margaret, Terrebonne County, brought me to a stream which led into a small Sphagnum bog. Hearing the rather distant "Tree-deer" of an Olive-sided Flycatcher I started toward some small-growth Tamarack and Spruce trees fringing the open bog, and as I entered their shade a small bird darted out at my feet. The nest, sunk in a hollow in the side of a mound of moss, held four eggs well advanced in incubation.

Thinking it to belong to one of the rarer Warblers I awaited the owner's return, but with the short time at my disposal had to leave unsatisfied. On June 20, 1914, I revisited this bog and after considerable search flushed a bird from a nest containing four similarly marked eggs. This was about fifty yards distant from that of 1913 and possibly belonged to the same pair of birds. I had heard the notes of the Yellow-bellied Flycatcher [*Empidonax flaviventris*] on each visit to this district but did not associate it with either nest found, until the birds put in an appearance in the latter instance. Owing to the ventriloquial quality in the voice of this Flycatcher it was some time before I discovered the bird, probably the female, perched on a branch two feet from the ground. Its alarm was sharper and more abruptly ended than the call notes, sounding somewhat like the syllables "pee-wheep"; the first note suggesting the Wood Peewee and the latter the Alder Flycatcher. The last note commenced with a rolling and ended with a grating sound, as if the bird had snapped off the sound by suddenly closing its mandibles, accompanied by a tail and bodily twitching that indicated considerable effort.

Hearing the usual call notes one would not suspect much effort, in fact, their ordinary notes, "peeh-peeh," the latter slightly accented and prolonged, have none of the explosiveness of "alnorum," but are peculiarly soft, drowsy, and effortless. Remaining as motionless as possible under the incessant attacks of "Black Flies" I soon heard the other bird answering its mate, and both shortly appeared overhead, a few feet distant, where they displayed mannerisms in movement very similar to the Wood Pewee. The nest was built in the hollow of a small mound, beneath the moss-covered, protruding portion of a root, under deep shade of young Black Spruce, Tamarack, and deciduous shrubs, with a tangle of Alders in the immediate foreground, facing the open bog. On the other side the growth was larger and became almost entirely deciduous, mostly Black Birch, where the basin of the bog terminated in the boulder-strewn base of surrounding hills. The nest found in 1913, which I am reasonably certain belonged to this species, was in a more open situation on the extreme edge of the small growth, in one of many mounds of moss bordering a hare-runway — almost similarly situated as a nest of Nashville Warbler found nearby.

The exterior of nest number two had the rich brown color of leaf mold, being composed of particles of dead Sphagnum and other mosses, fine hair-like black rootlets, bits of decayed wood, and moldy leaves. The lining was mainly of soft bleached grasses and fine black rootlets. The entire structure was very loosely made with little attempt at weaving. Incubation had commenced in the eggs which at first sight resembled those of the Alder Flycatcher, but on comparison the ground color was found to be clear white against the rich cream of "Alnorum," and the light reddish markings, chiefly in a wreath about the larger end, were in distinct contrast to the darker rusty red and occasional deep madder brown spots of the Alder Flycatcher. They are also considerably smaller than those of alnorum, averaging .68x.53 of an inch. Other species found breeding in the same bog were: Yellow-throat, Myrtle, Magnolia, Nashville, and Blackburn-

ian Warblers; White-throated, and Chipping Sparrows, and Olive-backed Thrush; also, apparently nesting, Olive-sided Flycatcher, Swamp Sparrow, and Golden-crowned Kinglet. The Yellow-bellied Flycatcher is quite common in the district and having found only two nests leads me to suspect that the bird is a very light sitter — a trait highly developed in its near relation, the Alder Flycatcher.

Other members of the family are well represented in the district, i.e.;— the Kingbird, Wood Peewee, Olive-sided, and Alder Flycatchers, and less commonly Least, Crested, and Phoebe Flycatcher. Earlier on the same day, in another locality at St. Margaret, I found a nest of the Golden-crowned Kinglet (*Regulus satrapa satrapa*). It was quite by accident that my eyes became focused on a mass of green, slightly brighter than the surrounding Balsam foliage, and I experienced a thrill similar to the botanist, who, on finding the Yellow Ladies Slipper, felt as if he had discovered hidden gold.

At the same time I became aware of the faint, though deliberate. "dee-dee" of a Kinglet, differing from the usual call note "ti-ti." This was apparently the alarm note though with little expression of alarm or otherwise; in fact, so expressionless as to attract attention in time by its very monotony. There was no sign of the wren-like scolding of the "Ruby-crown" and the only indication of ownership was a slightly increased tempo as I approached closely, when the other bird slipped from the nest and joined its mate. The nest was pensile, being hung from the heavily-foliaged limb of a Balsam Spruce, two feet from its tip, ten from the trunk, and twelve from the ground.

At the point where the nest was built, numerous branchlets occurred, several of them being caught in the nesting material beneath and securely fastened with knots of spider's silk. The supporting limb, half an inch in diameter at the nest, with the foliage, completely concealed the entrance beneath. Externally, the nest was almost entirely composed of bright yellowish-green mosses, mainly of the Hypnaceae

family. A few lichens (no Usnea) adorned the exterior and numerous balls of reddish-brown spiders' silk held the material together. Within this cradle of moss was a layer of fur from the Hare, and lastly a substantial lining of small feathers, some of them curving upwards and over the entrance, while throughout the nest occasional feathers and hair were used in binding. The nest measured, in outside diameter, 4x3.60 inches; outside depth, 2.15; inside depth, 1.30, and entrance diameter, 1.35 inches.

Only six eggs had been deposited and as incubation had not commenced, the set was likely incomplete. Passing this spot on July 6, I heard the alarm notes of a "Golden-crown" and soon found another nest with one egg, twenty two feet from the ground and eight from the trunk, similarly constructed and situated in another heavily-foliaged Balsam Spruce, one hundred feet distant from the first nest, having likely been built by the same pair of birds.

These nest-trees were situated on a hillside that was formerly pasture-land but now mostly overgrown with Balsam Spruce.

In the many open spaces between these trees was an undergrowth of Brake Fern and Hazel. Both nest-trees faced such openings, where the luxuriant growth and wide-spreading basal branches of the Balsams gave a park-like appearance to the view. On the lower reaches of the hill, facing a trout brook which drained the lake above, the growth was much denser. On June 29, in this denser growth near the brook, were families of two near relatives of the Kinglet—the Winter, and House Wren. The latter had evidently led her young into the shade from adjacent stump-land. From the stream bank a Water-Thrush occasionally sang and I had a chance to compare its song with that of the House Wren. The ripping liquid quality of the Water-Thrush notes always remind me of the Wren, and although the song of the former is much clearer and sweeter, it has the same hurried finish.

On the opposing hill, in dense forest growth, I again heard the methodical "dee-dee" of the "Golden-crown," and found

a family of adults and young, the latter evidently several days out of the nest.

On June 21, 1914, I found another nest of this Kinglet built a few feet distant, on a limb adjacent to that in which the first nest was found in 1913. As I approached, the nine or ten young made their debut from the nest, the cavity being much enlarged and flattened by the crowding of the young as they could not possibly have been contained in the original space. Half a mile away, in a thicket bordering a Sphagnum bog, I saw another family on the wing, and hearing the species singing in two other localities, I concluded it to be a fairly common summer resident, and that two broods are sometimes raised in a season.

It might be interesting to compare nests of the Ruby-crowned Kinglet, from Newfoundland. Several nests found by Mr. W. J. Brown, near Bay of Islands, were semi-pensile, resting on limbs of stunted Spruce trees and fastened to twigs of overhanging branches, quite closely to the trunk and generally about five feet from the ground. They are all similar and have a brown appearance compared to the bright green of the "Golden-crown," being composed of a miscellaneous mass of Sphagnum and other mosses, particles of decayed wood, dead spruce needles, fine rootlets, Caribou hair, and Usnea lichens. The lining is of plant down and reddish rootlets, and beneath this is a thick bed of Caribou hair. The body of the nest is sewn in places with hair and bound with Usnea, especially about the rim. The eggs of the two species are similar.

While descending the hill where Kinglets were found on June 29, 1913, I took advantage of a runway leading through the denser growth and discovered a nest on an overhanging limb of a Balsam Spruce, twenty feet from the ground. On climbing the tree, the sitting bird, which I later found was a female Blackburnian Warbler (*Dendroica fusca*), flew to an adjoining tree where she preened her feathers and occasionally uttered faint chips of alarm. The nest held five slightly incubated eggs. There was little shyness indicated

by the bird's actions as she remained in the same tree during my twenty-minute stay, but I failed to get a glimpse of the male bird, except possibly in a meteoric flash. Several other Warblers congregated in the vicinity, particularly Magnolia and Myrtle, some of them protesting more vigorously than the Blackburnian. These Warblers were probably feeding young in the vicinity as I found most of this family thus engaged at this date. The dense forest second-growth in which the nest was located, on the hill slope, overlooking the brook, was practically devoid of undergrowth, the ground being carpeted with dead needles of conifers. The opposing hill was likewise densely wooded, the intervening valley-growth, mainly of Black Birch, Tamarack, and Black Spruce, terminating, half a mile distant, in the aforementioned Sphagnum bog. On July 13, in the dense growth of Tamarack and Black Spruce encircling this bog, another nest of this species was found in the top of a slender Tamarack, fifteen feet from the ground, resting on a dense cluster of twigs. The female was sitting on three eggs in which incubation had advanced six or seven days. This bird acted as in the previous case and the male was very timid, being seen only once at some distance.

Both nests were similarly constructed, though that of July 13 was slighter, probably owing to the situation. The other nest was well out on the limb, about four feet from the trunk, and was supported by a few branchlets. The composition was mainly of fine dead lichen-covered twigs of Spruce and Tamarack, with a small quantity of Usnea interlarded, being held together externally in a few places with balls of spiders' silk. A small quantity of Usnea and black hair-like rootlets composed the lining. The nests are quite distinct from those of other Warblers that I have examined; differing from the Magnolias in having a preponderance of spruce twigs and no grasses; and from the Myrtles in the slighter construction and lack of feather lining. They differ in greater degree with nests of all other Warblers examined.

The eggs have some of the characteristics of those of the

Yellow Warbler, particularly in the bluish-white or pale bluish-gray ground color. The set of five has faint under-shell markings of lavender, overlaid with a heavy wreath of rufous-brown at the larger end. The other set has more distinct spots of lavender, rufous-brown, and blackish. The first set average .66x.51; the other .65x,53 of an inch. The rest measurements are:—Outside diameter, 3.40; inside, 2:25; outside depth, 2.10; inside, 1.45 inches.

St. Lambert, Que.

CORRECTIONS AND ADDITIONS TO THE PRELIMINARY LIST OF THE BIRDS OF ESSEX COUNTY, NEW JERSEY.

BY LOUIS S. KOHLER

Since publishing my list of birds observed by me in the above named county in the Wilson Bulletin, Nos. 72-73, September-December 1910, numerous species have been added during the three years which have elapsed since that time which bring the total up to January 1, 1914 to one hundred and forty-six species.

In addition to these several additions, there were several omissions, viz.: (52) Vesper Sparrow, (64) Rose-breasted Grosbeak, (65) Indigo Bird, and (96) Wilson Warbler, notes on which species will be given in the appended list.

Also numerous corrections, which more extensive observations have proven most conclusively, that my former statements were not quite true conditions, are at this time taken care of, together with additional notes on some of the species which have undergone changes as regards their former status and present distribution.

OMISSIONS.

(52) *Powecetes gramineus*—Vesper Sparrow. A common summer resident.

(64) *Zamelodia ludoviciana*—Rose-breasted Grosbeak. A rather common summer resident. Found nesting at numerous points throughout the county since 1904, but never with any regularity, as

the species in this section seems to be of a rather roving disposition, and where found some years is wanting the next.

(65) *Cyanospiza cyanea*—Indigo Bunting. Common summer resident. Nests in blackberry brambles in many parts of the county.

(96) *Wilsonia pusilla*—Wilson Warbler. A common migrant. Arrives May 12th to 19th.

ADDITIONS.

(119) *Colymbus auritus*—Horned Grebe. A pair of these birds appeared on the lake in Branch Brook Park, Newark, on April 23, 1911. This is the only time I have found them within the county limits, but just without, in Passaic and Morris counties, I have ten different records for the species during the spring and fall migrations, and it is fair to assume that the species visits us more than my observations would indicate.

(120) *Anas obscura rubripes*—Red-legged Black Duck. First observed on September 14th at Pine Brook on the Great Piece Meadows and on November 4th, three, one male and two females, were shot by several local hunters in this section, all of which were members of this subspecies. These records were all made during 1913.

(121) *Nettion carolinensis*—Green-winged Teal. A rather common migrant. The first specimen which came to my attention was a male which had been shot on November 4th, 1913, at Pine Brook. Later, on November 15th, seven more were examined in this section, four males and three females. During the spring of 1911 four birds were observed here, which appeared to be this species, and on November 2, 1912, another bird was found dead just across the Passaic River, in Morris county.

(122) *Querquedula discors*—Blue-winged Teal. Two males were observed at Beaufort on September 14, 1913. The only record I have for the county.

(123) *Aythya americana*—Redhead. One male observed at close range on September 14, 1913, at Pine Brook. The only record for the county.

(124) *Botaurus lentiginosus*—Bittern. This species was first recorded during June, 1912, when individual males were observed on Newark Meadows, near the Plank Road bridge, on the 21st, 24th and 25th. Apparently this same bird was seen on the 2d and 3d of July, 1912, in this same locality. On the 3d of July, 1913, a single female was seen here. These constitute the only records for the county.

(125) *Ardea herodias*—Great Blue Heron. Rather common migrant and visitant. On June 20, 1912, a male of this species ap-

peared on the park lake in Branch Brook Park and was about throughout the day. On May 11, 1913, a male was observed at Pine Brook. On September 6, 1913, five were seen migrating south over Newark Meadows, near Plank Road bridge, during the early morning.

(126) *Nycticorax nycticorax naevius*—Black-crowned Night Heron. A rather rare visitant. Observed in Branch Brook Park on May 11, 1912. Only record for county.

(127) *Porzana carolina*—Sora. One male observed at Pine Brook on September 14, 1913. Only record for county.

(128) *Gallinula galeata*—Florida Gallinule. One male found dead on Newark Meadows on September 6, 1913. Only record for county.

(129) *Actodromas minutilla*—Least Sandpiper. A rather common migrant. Observed first on May 10, 1912, when two were observed. On the 11th, 26th and 27th of May that year they were common on Newark Meadows. On August 12, 1912, twenty-five more were seen. On May 23, 1913, one male was observed, the only one for the year in this section.

(130) *Accipiter cooperi*—Cooper Hawk. An occasional visitant. First observed May 10, 1912, in Branch Brook Park. Since that time individuals have been observed at numerous places within the county.

(131) *Buteo lineatus*—Red-shouldered Hawk. A male of this species was shot by a local hunter at Pine Brook on November 5th, which is the first positive record that I have obtained for this county. Since then, on December 21st, a male was observed at close range from a blind at Bloomfield, feasting upon the remains of a field mouse.

(132) *Buteo platypterus*—Broad-winged Hawk. A rather common spring and fall migrant. Ocasional winter resident. First observed in Newark on November 4th, 1911, and since then individuals have been observed at different points within the county, but with no great regularity, as in the case of other of the *Buteonidæ*.

(133) *Falco peregrinus anatum*—Duck Hawk. First observed on Newark Meadows, near Plank Road bridge, on January 29, 1912. Later, February 20th and 24th, individuals were seen here. On December 31st, 1912, a male of this species was seen at Caldwell.

(134) *Falco columbarius*—Pigeon Hawk. First observed in Branch Brook Park, Newark, on May 11th, 1912. Since that time numerous individuals have been observed at numerous places within the county.

(135) *Pandion haliætus carolinensis*—Osprey. One of this species was observed at Silver Lake on September 2, 1911, the only record I have for the county.

(136) *Corvus ossifragus*—Fish Crow. Individuals of this species have appeared on different occasions on Newark Meadows since 1911, when it was first observed on August 12th, near the Plank Road bridge.

(137) *Spinus pinus*—Pine Siskin. An occasional winter visitant. Small flocks were observed first during the winter of 1911 in Branch Brook Park on December 5th and 19th. Since that time small flocks have been observed each winter here and in Montclair Heights near the normal school.

(138) *Progne subis*—Purple Martin. The first record for this county was made on the Newark Meadows on August 29th, 1912, when one of this species was observed flying over southward. Since then two other individuals were observed in Bloomfield on May 12th and at Caldwell on July 19th, 1913. Only record for county.

(139) *Lanius ludovicianus migrans* — Northern Loggerhead Shrike. Individuals of this species were observed at Silver Lake on August 23d, 1911, and one more on August 25th, 1911, in Branch Brook Park. These constitute the only records for the county.

(140) *Dendroica fusca*—Blackburnian Warbler. First observed in Bloomfield on September 11, 1911. During the spring migrations of 1912 and 1913 one male was observed each season. Only records for county.

(141) *Nannus hiemalis*—Winter Wren. Only one of this species has come to attention and this was a male in Branch Brook Park on October 29, 1913.

(142) *Cistothorus stellaris*—Short-billed Marsh Wren. Two individuals of this species were observed on Newark Meadows on May 2, 1913, the only records on my lists.

(143) *Sitta canadensis*—Red-breasted Nuthatch. A male of this species flew into the tannery near the Plank Road bridge on January 26, 1913, was immediately liberated on discovery. This is the only record I have of the species in this county.

(144) *Fringilla carduelis*—European Goldfinch. This beautiful exotic has been observed twice in Essex county, once on December 3d, 1911, at West Orange, and again on January 4th, 1913, at Caldwell.

(145) *Phasianus colchicus*—Ring-necked Pheasant. Common resident in the rural sections of the county.

(146) *Passer domesticus*—English Sparrow. An abundant permanent resident. Inadvertently left out of the former list.

CORRECTIONS.

Anas rubripes tristis—Black Duck. Since publishing the first list I have spent considerably more time on the Great Piece Meadows and my observations have proven consclusively that this species was and is far more common than was formerly suspected. Nests were found during the spring of 1911, 1912 and 1913, and during the fall migrations of these years myriads of these birds were to be flushed wherever you pushed your boat. Not near as common during the vernal migrations as during the autumnal.

Ammodramus savannarum australis—Grasshopper Sparrow. Observations since 1910 have proven my former remarks quite inadequate and at the present time may be considered a common summer resident, nesting in numerous places about the county.

Sturnus vulgaris—Starling. Have increased wonderfully in the last three or four years and are now as abundant as the *Passer domesticus* and nearly as much of a nuisance. By far the worst opponent of our domestic species. Have driven the Bluebird, House Wren and Flicker away from my home grounds and have established themselves in every available nook and cranny.

Anthus rubescens—Pipit. My statements regarding this species in the former list are without doubt wholly wrong and observations since 1910 have proven this species a common transient migrant always more abundant during the vernal than during the autumnal migrations.

Baeolophus bicolor—Observations since the former list have proven this species to be a common winter resident in the northern parts of the county in the neighborhood of the Passaic River and Great Piece Meadows.

January 1, 1914.

A CAMP-FIRE GIRL'S TAME RED-BREASTED NUTHATCH.

BY HARRIET KINSLEY.

The winter of 1912 was very cold and we had many birds visiting our feeding table, including chickadees, downy, hairy and red-bellied woodpeckers, juncoes, a pair of cardinals, blue jays and the white-breasted nuthatches.

One day my mother noticed another bird on the trunk of a tree in the yard. She had never seen one like it before.

A few days later she saw it again and pointed it out to me.

I noticed its colors, a bluish slate-colored back with black stripes running back above each eye and the breast tinged with rufous.

I looked this up in my bird book and found it to be a red-

Harriet Kinsley.

breasted nuthatch. He seemed to be alone, as we never saw any other with him.

Being a very cold winter we felt sorry for the little fellow. He seemed very tame, as we could get much closer to him than any of the other birds. His favorite food was nut meats, and fortunately we had gathered a quantity of nuts that fall. He even had a choice in the meats as he preferred butternuts.

One day he took a walnut by mistake, but dropped it before he had gone very far, and scolded us for tricking him.

He took it for granted that he was the sole owner of the feeding table and it took a great deal of his time trying to keep the other birds away. One day my mother thought she would put a nut meat on her hand and see how near he would come to it. He wanted the nut very much, but was a little shy about coming down to get it; he scolded, cocking his head first on one side and then on the other. The temptation was too great; he would risk his life; he made a swoop, lighting on her hand, and away he went with the nut. The next day we all tried the same thing and found he would take them after a great deal of scolding. We fed him every day and he gradually grew less timid.

We called him " Hatchie," and when we had a nut for him and he was not in sight we would call, "Come, Hatchie," several times and most always he would come, knowing what was in store for him.

He also got the habit of lighting on the top of a screen door, which was open, and in this way he could look in through the kitchen window; here he would sit and wait until we would feed him.

Sometimes when he had plenty to eat he would hide the nuts under the bark of trees.

He finally got so tame that he would come to any of the windows and wait patiently for a nut. We had to keep little piles of nuts by several of the windows so we would not have to go so far. Several times he perched on the window sill when we were upstairs.

We grew to think a great deal of the little fellow and were afraid he would leave us when it got warmer, and this was true. As the weather grew warm in the spring and the other winter birds went north, he left us. We missed him the first day of April. At first we thought it was an April fool trick, but it was not. He had left us for good, as we have never seen him since.

McGregor, Iowa.

THE FEARLESS WHITE-EYED VIREO.

BY ARETAS A. SAUNDERS.

The White-eyed Vireo (*Vireo griseus griseus*), when nesting and coming in contact with man, is one of the most fearless birds that we have. Perhaps I might have written one of the tamest birds, for that is the way many people would express it. But the bird does not show the confiding familiarity with man that such birds as the Chickadee and Chipping Sparrow show and thus could not properly be called

White-Eyed Vireo Defending Its Nest.

tame. It keeps away from man, seeking out the wildest tangle of green-brier thickets for its habitat and nest. It is only when man seeks it out, and finds the secret of its nest that it becomes at all "tame," and such tameness is better called fearlessness.

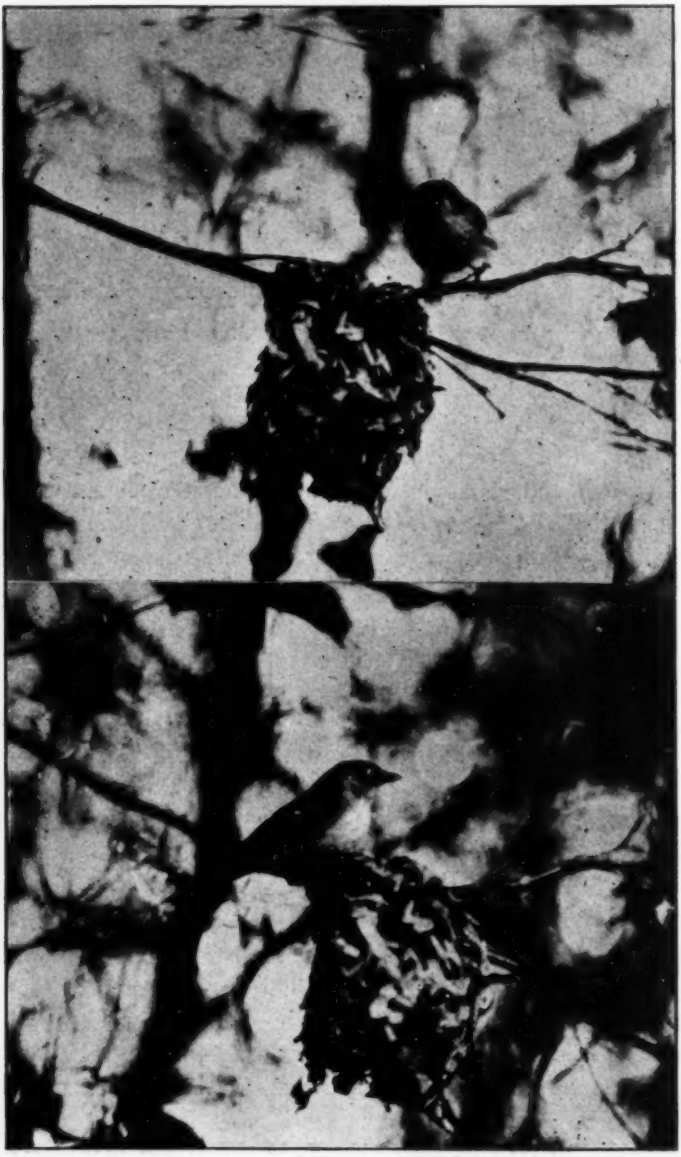
On the 27th day of May, 1914, while hunting birds and

bird nests in the vicinity of West Haven, Conn., it happened that I came upon one of the most fearless individuals of this fearless race. I pushed my way through a thicket of green-brier vines, and there in a little open space, on a drooping branch of a white birch that grew among the green-briers, sat a Vireo not three feet from my eyes, gazing down into its nest, and blinking the clear white eye that instantly told its species. The nest didn't look quite finished. The bird was not on it, but above it, so not wishing the disappointment of a deserted nest I didn't press my acquaintance further, but withdrew, to return later when the home was more firmly established.

My next visit was made the morning of May 29. The bird was on the nest this time and showed no disposition to leave until I had almost touched it. The nest contained three eggs. The bird did not go far, but remained in the bushes not two feet away and sang the short impetuous song repeatedly. From this fact I decided that either the female was a singer, or else the male shared in the duties of incubation. As soon as I had ceased my examination, and before I was out of sight, the bird returned to the nest and settled down to incubation again.

On June 1 I again visited the nest with a camera with which to secure pictures of the sitting bird. The nest now contained four eggs, the last having probably been laid on the morning of May 30, or possibly May 31. The pictures were easily taken, the bird sitting so still that long time exposures proved successful. The bird seemed more fearless than before, and only left the nest when I touched it, returning as soon as my hand was removed. When off the nest the bird sang repeatedly. Just why it should sing under such conditions is hard to say, but it was easy to imagine that the emphatic song was one of defiance to the disturber of its home.

It was during this visit that I first saw the mate of this bird and settled the question of sex. The other bird protested with a low, harsh scolding note, but no song. It would



White-Eyed Vireo and Nest.

Upper by Dwight B. Pangburn. Lower by A. A. Saunders.

White-Eyed Vireo on Nest.
Upper—Natural Pose. Lower—Head Erected as it Watches Hand Approaching the Nest.

not come near the nest while I was around. It was evident, and this was more thoroughly confirmed by further observation, that my singer was the male, and that both sexes shared in the duty of incubation.

The two birds showed marked individuality in the matter of fearlessness, the male being much more so than his mate. With some other birds, notably the Rose-breasted Grosbeak and the Marsh Hawk, numerous observations have convinced me that the male is frequently, if not always more fearless in defense of the home than his mate. On the other hand, in the case of the Bluebird, my observations go to show that either sex of a pair may be the more fearless individual. Which is the case with the White-eyed Vireo is a question which will take more observations to determine. The condition in which the male is always the more fearless would seem to be the natural result of evolutionary processes, which would tend to keep the female from harm, and thus insure the successful rearing of the young, even though the male should come to grief in the midst of his defense.

Frequent visits to the nest found sometimes one bird and sometimes the other incubating. The female always left the nest when I was several feet away and scolded me from a distant point in the thicket. The scolding usually brought her mate to the vicinity, and he never failed to take up his position on the eggs immediately unless my hand was actually on the nest. As time went on his courage increased until he would actually peck at my fingers before leaving.

On June 6, I visited the nest, accompanied by my friend, Mr. D. B. Pangburn. We took with us a reflex camera with which to try for more pictures of the bird. I had plenty of good pictures of the bird sitting on the nest, but wished a few of it when sitting in the bushes above or near the nest. On this occasion the bird pecked vigorously at our fingers, and absolutely refused to oblige us by getting off. We finally had to remove him forcibly. He showed such resistance to this that we could do it in no way except to grasp him by the bill and thus lift him off. In spite of this rather rough hand-

ling the little bird returned to the nest so promptly that the first few times the camera could not be adjusted and ready for him until he was seated again. We were unable to get the pictures we wished until we arranged it so that one of us got the camera ready while the other evicted the bird.

I made many trips to the nest after this, watching for the time that the eggs should hatch. I was planning to leave the vicinity for the summer soon, and hoped for studies and pictures of the feeding of the young before I went. The period of incubation proved so long that I began to fear that something had happened to prevent the eggs from hatching. On June 13 the nest still contained eggs. On this date the nest was visited by several members of the New Haven Bird Club, and all of them experienced the novel sensation of allowing the sitting bird to peck their fingers. It was on this occasion that I obtained a photograph of this act, one of the ladies allowing her hand to be photographed as the bird pecked at her fingers.

Early on the next morning, June 14, I found that the eggs had finally hatched. It was too late for me to get the studies of the feeding I had desired, but just in time for a note on the period of incubation. Assuming that the last egg was laid on May 30, which was most probable, the period of incubation was fifteen days. This is a decidedly long period for so small a bird, and longer than that of any other bird of its size with which I am acquainted.

A LIST OF THE BIRDS OF CLAY COUNTY, SOUTHEASTERN SOUTH DAKOTA.

BY S. S. VISHER, PH.D.

The location of Clay County on the Missouri River and crossed by the Vermilion River makes it a favorable area for the study of birds, there probably being a greater variety in this than in adjacent counties, while because the university is located here, more bird students have made extended ob-

servations within this than in any other South Dakota county. The first to carry on bird studies in this area was F .V. Hayden, the eminent geologist, who collected many birds "near the mouth of the Vermilion River" in May and June, 1854 and 1855. His records are included in Elliot Coues' classic "Birds of the Northwest" (Washington, 1872). C. S. Agersborg, in "The Auk" for 1885 gives a list of the birds of Southeastern Dakota. Of the 215 species included, most were observed in the vicinity of Vermilion, in or near which city Mr. Agersborg had lived for several years. During the past ten years, three students of the University of South Dakota have made some study of the birds. Benjamin Rowley and E. H. Sweet deserve special mention. Sheridan Jones also collected and mounted some specimens for the University Museum, but left no other record of his work.

The following list has been compiled in part from data furnished me by Rowley and Sweet, from Agersborg's article, and Hayden's records, but it is chiefly the result of my observations in the area since 1908, especially 1910-13, while a member of the faculty of the University. With the help of a motorcycle, the more favored localities could be visited frequently, and much more effective work was possible than in the case of less fortunate observers. Careful records of the migration, abundance, and nesting of the birds seen were made for the U. S. Biological Survey, and numerous specimens were collected for the University Museum.

Clay County can be divided into five districts: (1) The Missouri bottom land; (2) The valley of the Vermilion River; (3) The bluffs along these valleys, the ravines of which are especially distinctive; (4) The nearly level upland or "prairie"; (5) The rough land of the northeastern corner of the county.

Most of the area is under cultivation. The chief exceptions are sand areas in the Missouri bottom, flooded areas (now however extensively drained by the recently completed "big ditch") in the Vermilion valley and the rough land along the bluffs. There are few small ponds on the upland level;

the one most frequently visited was "Rose Lake," situated some nine miles northeast of Vermilion.

The trees of the area are: (1) numerous planted groves of cottonwood, ash, elm, box-elder, plum, and maple; (2) native groves of the same species (except the maple) on the bottoms; (3) woods in the ravines where bur-oak, basswood, hackberry, and coffee-tree supplement the species just mentioned.

The more abundant birds nesting in the treeless portion of the upland are the Western Meadowlark, Marsh Hawk, Sennett's Nighthawk, Bobolink, Cowbird, Western Grasshopper Sparrow and Dickcissel.

The birds most frequently found nesting in upland groves are the Western Mourning Dove, Sparrow Hawk, Flicker, Red-headed Woodpecker, Kingbird, Least Flycatcher, Crow, Bronzed Grackle, Orchard Oriole, Baltimore Oriole, Goldfinch, Lark Sparrow, Chipping Sparrow, Rose-breasted Grosbeak, White-rumped Shrike, Yellow Warbler, Catbird, Western House Wren, Brown Thrasher, Robin.

In addition to those found in upland groves, the following nest commonly in the groves along the rivers: Western Red-tailed Hawk, Screech Owl, Black-billed and Yellow-billed Cuckoos, Hairy and Downy Woodpeckers, Blue Jay, Towhee and Cardinal. The more conspicuous birds of the city of Vermilion are the Bronzed Grackles, Rose-breasted Grosbeaks, Robin, Blue Jay, Chimney Swift, Western House Wren, Chickadee, White-breasted Nuthatch, Baltimore Oriole, Warbling Vireo, Wood Thrush, Wood Pewee and Purple Martin.

In the more densely wooded ravines, Wood Thrushes, Scarlet Tanagers, Screech Owls, Oven-birds, Wood Pewee and Indigo Bunting nest, while many migrants, especially warblers, stop here.

The water birds observed nowadays in this area are chiefly migrants, though many species formerly nested here. Among the water birds most frequently seen in summer may be mentioned: Pied-billed Grebe, Franklin Gull, Black Tern, Least

Tern, Blue-winged Teal, Shoveller, Pintail, American and Least Bittern, Sora Rail, Coot, Killdeer, Yellowhead and Thick-billed Redwing Blackbirds. Kingfishers and Green Heron nest frequently along the rivers.

LIST OF SPECIES.

Horned Grebe (*Colymbus auritus*).—A rare migrant.

Eared Grebe (*Colymbus nigricollis californicus*).—A rare summer resident. Common in migrations.

Pied-billed Grebe (*Podilymbus podiceps*).—Breeds commonly.

Loon (*Gavia immer*).—A rare migrant. There is a mounted specimen, secured in the county, in the University museum.

Herring Gull (*Larus argentatus*).—A rare migrant.

Ring-billed Gull (*Larus delawarensis*).—A small number of these gulls are seen each spring and fall.

Franklin's Gull (*Larus franklini*).—Abundant during late spring and early fall. Also seen occasionally in summer.

Forster's Tern (*Sterna forsteri*).—Occasionally common during migrations.

Least Tern (*Sterna antillarum*).—This interesting bird has nested regularly for many years along the Vermilion River, near the town of Vermilion, and also at the mouth of the stream, a few miles away. Nests have been found on several occasions. The colonies are small, consisting of not more than seven or eight pairs.

Black Tern (*Hydrochelidon nigra surinamensis*).—A common migrant and locally an abundant nester.

Double-crested Cormorant (*Phalacrocorax auritus auritus*).—A tolerably common migrant. Agersborg states that they formerly bred here.

White Pelican (*Pelecanus erythrorhynchos*).—A frequent migrant, passing in large flocks during April and late September and October.

Merganser (*Mergus americanus*).—A rare migrant.

Red-breasted Merganser (*Mergus serrator*).—A rare migrant.

Hooded Merganser (*Lophodytes cucullatus*).—An irregular visitor. Sometimes probably breeds.

Mallard (*Anas platyrhynchos*).—A very abundant migrant, and a rare breeder. Remains until late in December, or even well on into January, if portions of the Missouri River continue open.

Black Duck (*Anas rubripes*).—A rare migrant; seen as late as early June.

Gadwal (*Chaulelasmus streperus*).—A common migrant.

Baldpate (*Mareca americana*).—Abundant during migrations and tolerably common in summer.

Green-winged Teal (*Nettion carolinensis*).—Abundant migrant.

Blue-winged Teal (*Querquedula discors*).—An abundant migrant and frequent summer resident. By far the most abundant duck during the summer. Breeds on ponds and on bayous of the river. Arrives late in April and leaves in October.

Cinnamon Teal (*Querquedula cyanoptera*).—A very rare migrant.

Shoveller (*Spatula clypeata*).—An abundant migrant. Arrives about April 1, but not conspicuously abundant until the middle of that month. Breeds regularly.

Pintail (*Dafila acuta*).—The Pintail, or "spike-tail," is the earliest duck. Until late in March it is the predominant species. It breeds here occasionally.

Hutchin's Goose (*Branta canadensis hutchinsi*).—A very common migrant.

Brant (*Branta bernicla glaucogastra*).—Occasional migrant.

Whistling Swan (*Olor columbianus*).—An occasional migrant. A "winged" bird was kept in captivity for several weeks in 1911 before it died.

Bittern (*Botaurus lentiginosus*).—An abundant breeder.

Least Bittern (*Ixobrychus exilis*).—Occasionally a tolerably common breeder.

Great Blue Heron (*Ardea herodias herodias*).—A common migrant and a rare breeder.

Green Heron (*Butorides virescens virescens*).—Nests fairly plentiful in summer along the rivers.

Black-crowned Night Heron (*Nycticorax nycticorax naevius*).—One or two heronies are within reach of this area for these birds are met with on Rose Lake frequently.

Whooping Crane (*Grus americana*).—A rare migrant

Sandhill Crane (*Grus mexicana*).—A tolerably common migrant.

King Rail (*Rallus elegans*).—A rare summer resident.

Virginia Rail (*Rallus virginianus*).—Abundant migrant and common breeder.

Sora (*Porzana carolina*).—An abundant breeder.

Florida Gallinule (*Gallinula galeata*).—An accidental visitor. One was taken by E. H. Sweet a short distance east of Vermilion about April 15, 1899.

Coot (*Fulica americana*).—An exceedingly abundant breeder.

Wood Duck (*Aix sponsa*).—A few wood ducks have been shot here during the past few years. Formerly they were common and nested.

Redhead (*Marila americana*).—An abundant migrant and a rare breeder.

Canvas-back (*Marila vallisneria*).—Occasionally a common migrant.

Scaup Duck (*Marila marila*).—A rare migrant.

Lesser Scaup Duck (*Marila affinis*).—An abundant migrant. Some remain well into June and may breed occasionally.

Ring-necked Duck (*Marila collaris*).—Somewhat rare as a migrant.

Golden-eye (*Clangula clangula americana*).—A rare migrant.

Buffle-head (*Charitonnetta albeola*).—An abundant migrant.

Ruddy Duck (*Erismatura jamaicensis*).—An uncommon visitant; occasionally breeds.

Snow Goose (*Chen hyperboreus hyperboreus*).—An abundant migrant.

Blue Goose (*Chen caerulescens*).—An occasional migrant. Several were seen early in April, 1911, and one was taken for the museum.

White-fronted Goose (*Anser albifrons gambeli*).—A fairly abundant migrant; seen as late as early in June during the past two seasons.

Canada Goose (*Branta canadensis canadensis*).—An abundant migrant. Reported by Agersborg as formerly a rare breeder. Remained about the air holes in the Missouri River until January during the past winter.

Northern Phalarope (*Lobipes lobatus*).—Rare migrant. A specimen taken by Sweet is in the museum.

Wilson's Phalarope (*Steganopus tricolor*).—An abundant migrant and rare breeder.

Avocet (*Recurvirostra americana*).—Reported by Agersborg and Sweet as a rare migrant.

Woodcock (*Philohela minor*).—Reported by Agersborg as a very rare breeder and by Sweet as a rare migrant. There is a specimen, secured in South Dakota, mounted in the museum.

Wilson's Snipe (*Gallinago delicata*).—An abundant migrant.

Long-billed Dowitcher (*Macrorhamphus griseus scolopaceus*).—A very common migrant.

Stilt Sandpiper (*Micropalama himantopus*).—A rare migrant.

Pectoral Sandpiper (*Pisobia maculata*).—A very common migrant.

White-rumped Sandpiper (*Pisobia fuscicollis*).—A common migrant.

Baird's Sandpiper (*Pisobia bairdi*).—A tolerably common migrant.

Least Sandpiper (*Pisobia minutilla*).—A common migrant.

Red-backed Sandpiper (*Pelidna alpina sakhalina*).—A tolerably common migrant. A male in full summer plumage seen May 19, 1912.

Semipalmated Sandpiper (*Ereunetes pusillus*).—A fairly common migrant.

Marbled Godwit (*Limosa fedoa*).—A rare visitor; formerly common.

Hudsonian Godwit (*Limosa haemastica*).—A rare but regular migrant.

Greater Yellow-legs (*Totanus melanoleucus*).—A common migrant.

Yellow-legs (*Totanus flavipes*).—A very common migrant.

Solitary Sandpiper (*Helodromas solitarius solitarius*).—A fairly common migrant. Absent in summer, only a short time in June.

Western Willet (*Catoptrophorus semipalmatus inornatus*).—A common migrant.

Upland Plover (*Bartramia longicauda*).—Tolerably frequent in summer.

Buff-breasted Sandpiper (*Tryngites subruficollis*).—"An abundant spring migrant," Agersborg. Seen only a few times.

Spotted Sandpiper (*Actitis macularius*).—A fairly common migrant.

Long-billed Curlew (*Numenius americanus*).—Reported by Agersborg as formerly a rare breeder. At present a very rare migrant.

Black-bellied Plover (*Squatarola squatarola*).—Occasionally a common migrant.

Golden Plover (*Charadrius dominicus dominicus*).—A rare spring migrant.

Killdeer (*Oxyechus vociferus*).—A very abundant summer resident; arriving before the middle of March and departing in November.

Semipalmated Plover (*Aegialitis semipalmata*).—A very common migrant.

Piping Plover (*Aegialitis meloda*).—A tolerably frequent migrant.

Ruddy Turnstone (*Arenaria interpres morinella*).—A small flock was seen on Rose Lake in May, 1912, and in May, 1913.

Bob-white (*Colinus virginianus virginianus*).—A fairly common resident.

Prairie Chicken (*Tympanuchus americanus americanus*).—An abundant winter visitant and rare nester.

Prairie Sharp-tailed Grouse (*Pediocoetes phasianellus campestris*).—Irregular; abundant during some winters, while during others it is absent.

Wild Turkey (*Meleagris gallopavo silvestris*).

Passenger Pigeon (*Ectopistes migratorius*).—Both of these game birds were reported by Agersborg to be rare breeders here in the seventies.

Western Mourning Dove (*Zenaidura macroura marginella*).—An abundant summer resident. Sometimes remains until December.

Turkey Vulture (*Cathartes aura septentrionalis*).—Seldom seen; however it has been known to breed here.

Swallow-tailed Kite (*Elanoides forficatus*).—Accidental in summer. One collected near Vermilion, mounted by Rowley, now in the museum. Reported by Agersborg as an occasional visitor.

Marsh Hawk (*Circus hudsonius*).—Abundant from early in March till the coming of winter. Seen occasionally in winter.

Sharp-shinned Hawk (*Accipiter velox*).—A tolerably common migrant and rare breeder; nest found.

Cooper's Hawk (*Accipiter cooperi*).—Rare, summer resident; nests found.

Goshawk (*Astur atricapillus atricapillus*).—Rare, in migrations and winter.

Western Red-tail (*Buteo borealis calurus*).—A common resident.

Krider's Hawk (*Buteo borealis krideri*).—A common migrant.

Swainson's Hawk (*Buteo swainsoni*).—Breeds abundantly. Arrives early in April and departs in October.

Red-shouldered Hawk (*Buteo lineatus lineatus*).—A tolerably common migrant.

Broad-winged Hawk (*Buteo platypterus*).—A regular but uncommon migrant.

Rough-legged Hawk (*Archibuteo lagopus sancti-johannis*).—Common in winter.

Ferruginous Rough-leg (*Archibuteo ferrugineus*).—Common in migrations and winter.

Golden Eagle (*Aquila chrysaetos*).—Occasional except in the summer.

Bald Eagle (*Haliaetus leucocephalus leucocephalus*).—Very rare winter vistant.

Gray Gyrfalcon (*Falco rusticolus rusticolus*).—A rare winter visitant. Agersborg collected one in 1880. I saw one in 1910.

Prairie Falcon (*Falco mexicanus*).—Occasional except in midsummer.

Duck Hawk (*Falco peregrinus anatum*).—Occasional migrant.

Pigeon Hawk (*Falco columbarius columbarius*).—Tolerably common migrant.

Richardson's Pigeon Hawk (*Falco columbarius richardsoni*).—A fairly common migrant. The type locality is Vermilion.

Sparrow Hawk (*Falco sparverius sparverius*).—Breeds abundantly.

Osprey (*Pandion haliaetus carolinensis*).—A rare migrant.

Barn Owl (*Aluco pratincola*).—Occasionally met with. Two specimens are in the museum, the last one having been taken November 26, 1912.

Long-eared Owl (*Asio wilsonianus*).—An abundant migrant and occasional summer resident.

Short-eared Owl (*Asio flammeus*).—Abundant except in winter, when it is rare.

Barred Owl (*Strix varia varia*).—Fairly frequent in winter. One pair nested in a wooded ravine, a short distance east of Vermilion, during the summer of 1912.

Screech Owl (*Otus asio asio*).—The most abundant owl; resident.

Western Horned Owl (*Bubo virginianus pallescens*).—Common in winter.

Arctic Horned Owl (*Bubo virginianus subarcticus*).—Two captures recorded by Agersborg.

Great Horned Owl (*Bubo virginianus virginianus*).—Perhaps an occasional resident.

Snowy Owl (*Nyctea nyctea*).—Irregularly common in winter.

Burrowing Owl (*Speotyto cunicularia hypogaea*).—An abundant summer resident. Most of these owls nest in deserted badger holes as prairie dogs are not found in this vicinity.

Yellow-billed Cuckoo (*Coccyzus americanus americanus*).—Nests commonly, arriving about May 15, and leaving September 1.

Black-billed Cuckoo (*Coccyzus erythrophthalmus*).—A common summer resident.

Belted Kingfisher (*Ceryle alcyon*).—Breeds commonly along the rivers.

Hairy Woodpecker (*Dryobates villosus villosus*).—Common in winter, and occasional in summer.

Downy Woodpecker (*Dryobates pubescens medianus*).—A common resident.

Yellow-bellied Sapsucker (*Sphyrapicus varius varius*).—Irregular migrant; rare, summer resident.

Redheaded Woodpecker (*Melanerpes erthrocephalus*).—An abundant summer resident.

Northern Flicker (*Colaptes auratus luteus*).—Abundant in summer, common in winter.

Red-shafted Flicker (*Colaptes cafer collaris*).—Rare visitor.

Whip-poor-will (*Antrostomus vociferus vociferus*).—A tolerably frequent summer resident.

Sennett's Nighthawk (*Chordeiles virginianus sennetti*).—An abundant summer resident.

Chimney Swift (*Chaetura pelagica*).—Abundant nester in the towns.

Ruby-throated Hummingbird (*Archilochus colubris*).—Several pairs have bred in Vermilion the last few summers.

Kingbird (*Tyrannus tyrannus*).—An abundant summer resident.

Arkansas Kingbird (*Tyrannus verticalis*).—Common in summer,

especially about the small groves and "tree claims" of the prairies.

Phoebe (*Sayornis phoebe*).—A common summer resident. Remained until December 1st in the mild autumn of 1912.

Say's Phoebe (*Sayornis sayus*).—A rare or accidental visitor during the spring migration; recorded by E. H. Sweet in May, 1902.

Olive-sided Flycatcher (*Nuttalornis borealis*).—Rare migrant.

Wood Pewee (*Myiochanes virens*).—Common breeder, especially in the town.

Alder Flycatcher (*Empidonax traillii alnorum*).—A fairly abundant breeder in the willow thickets along the streams.

Least Flycatcher (*Empidonax minimus*).—Tolerably common summer resident.

Prairie Horned Lark (*Octocoris alpestris praticola*).—Common in winter, but quite rare in summer.

Desert Horned Lark (*Octocoris alpestris leucolaema*).—A winter visitor.

Blue Jay (*Cyanocitta cristata cristata*).—An abundant resident.

Northern Raven (*Corvus corax principalis*).—Reported by Agersborg as a rare winter visitor.

Crow (*Corvus brachyrhynchos brachyrhynchos*).—Abundant resident.

Bobolink (*Dolichonyx oryzivorus*).—An abundant summer resident.

Cowbird (*Molothrus ater ater*).—Abundant from April to September.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*).—Numerous nester in the few marshes which have cattails and reeds.

Thick-billed Red-wing (*Agelaius phoeniceus fortis*).—Breeds abundantly in reeds of marshes and in willows at water's edge. Arrives about the middle of March and leaves late in November or early in December.

Western Meadowlark (*Sturnella neglecta*).—One of the more abundant prairie birds from mid-April to November; occasionally an individual winters.

Orchard Oriole (*Icterus spurius*).—Abundantly represented in the summer (May 15-July 31), especially in the willow groves along the rivers.

Baltimore Oriole (*Icterus galbula*).—A common summer resident, especially in the towns.

Bullock's Oriole (*Icterus bullocki*).—An occasional migrant. Reported by Agersborg to occasionally breed.

Rusty Blackbird (*Euphagus carolinus*).—A rare migrant.

Brewer's Blackbird (*Euphagus cyanocephalus*).—A common migrant, March and April, October and November. Also seen early in February, 1912.

Bronzed Grackle (*Quiscalus quiscalus aeneus*).—Abundant from March 15 to October; occasional in December.

Evening Grosbeak (*Hesperiphona vespertina vespertina*).—Rare winter visitant.

Purple Finch (*Carpodacus purpureus purpureus*).—A rare migrant.

Crossbill (*Loxia curvirostra minor*).—Rare migrant.

White-winged Crossbill (*Loxia leucoptera*).—A rare migrant.

Redpoll (*Acanthis linaria linaria*).—Abundant in the winter months about the groves.

Goldfinch (*Astragalinus tristis tristis*).—An abundant resident.

Pine Siskin (*Spinus pinus*).—Tolerably common migrant, and occasionally common in winter.

Snow Bunting (*Plectrophenax nivalis nivalis*).—Common some winters, but rare others.

Lapland Longspur (*Calcarius lapponicus lapponicus*).—Fairly plentiful from September to April.

Chestnut-collared Longspur (*Calcarius ornatus*).—An abundant migrant, a rare breeder, and an occasional winter resident.

Western Vesper Sparrow (*Poœcetes gramineus confinis*).—A tolerably common breeder.

Savannah Sparrow (*Passerculus sandwichensis savanna*).—A tolerably common breeder. Abundant in migrations, especially in late April and mid-September.

Western Grasshopper Sparrow (*Ammodramus sâvannarum bimaculatus*).—Abundant from late April till early September.

Henslow's Sparrow (*Passerherbulus henslowi henslowi*).—A common migrant.

Leconte's Sparrow (*Passerherbulus lecontei*).—Tolerably common migrant.

Nelson's Sparrow (*Passerherbulus nelsoni nelsoni*).—A rare spring migrant; taken.

Lark Sparrow (*Chondestes grammacus grammacus*).—Nests tolerably frequent, especially in tree claims on the plains.

Harris's Sparrow (*Zonotrichia querula*).—An abundant migrant. One seen as late as June 18, 1912.

White-crowned Sparrow (*Zonotrichia leucophrys leucophrys*).—A common migrant.

Gambel's Sparrow (*Zonotrichia leucophrys gambelli*).—Hayden captured a specimen of this variety near Vermilion in 1857.

White-throated Sparrow (*Zonotrichia albicollis*).—A very common migrant.

Western Tree Sparrow (*Spizella monticola ochracea*).—The most abundant sparrow of the thickets from November to April.

Chipping Sparrow (*Spizella passerina passerina*).—Common during the summer months; arrived March 12, 1913.

Clay-colored Sparrow (*Spizella pallida*).—Plentiful in migration, frequently nests.

Western Field Sparrow (*Spizella pusilla arenacea*).—The most abundant sparrow during the summer months about the bluffs.

Slate-colored Junco (*Junco hyemalis hyemalis*).—Plentiful in migrations; winters fairly plentiful in weed patches in the Missouri valley.

Song Sparrow (*Melospiza melodia melodia*).—Abundant migrant and rare in summer along the wooded streams.

Sabuta Song Sparrow (*Melospiza melodia guddi*).—Taken in migration near Vermilion.

Lincoln's Sparrow (*Melospiza lincolni lincolni*).—Regular migrant.

Swamp Sparrow (*Melospiza georgiana*).—Rare in the summer, frequent in migrations.

Fox Sparrow (*Passerella iliaca iliaca*).—Irregular migrant.

Towhee (*Pipilo erythrophthalmus erythrophthalmus*).—Nests commonly. Seen as late as December, 1912.

Arctic Towhee (*Pipilio maculatus arcticus*).—Plentiful in migration.

Cardinal (*Cardinalis cardinalis cardinalis*).—A tolerably common resident in the Missouri valley, near Vermilion.

Rose-breasted Grosbeak (*Zamelodia ludoviciana*).—Abundant from early May to early September, especially in the city of Vermilion, where its song is perhaps the most frequent of bird songs during May and June.

Black-headed Grosbeak (*Zamelodia melanocephala*).—Recorded by Agersborg, and by Rowley, as an occasional summer resident.

Indigo Bunting (*Passerina cyanea*).—An abundant summer resident.

Lazuli Bunting (*Passerina amoena*).—An occasional or accidental visitor. One certainly seen in Vermilion May 24, 1912.

Dickcissel (*Spiza americana*).—Very abundant during June and July.

Lark Bunting (*Calamospiza melanocorys*).—At present an uncommon migrant. Recorded by Rowley and Sweet and Agersborg as formerly a common nester during the dry years of the late 80's and 90's.

Scarlet Tanager (*Piranga erythromelas*).—A tolerably common summer resident.

Purple Martin (*Progne subis subis.*)—Plentiful in summer about the towns.

Cliff Swallow (*Petrochelidon lunifrons lunifrons*).—Nests in colonies under the eaves of barns. Locally abundant.

Barn Swallow (*Hirundo erythrogastra*).—This is the best known swallow, as it nests in all barns.

Tree Swallow (*Iridoprocne bicolor*).—An abundant migrant and rare breeder.

Bank Swallow (*Riparia riparia*).—Breeds in large colonies along the river.

Rough-winged Swallow (*Stelgidopteryx serripennis*).—Breeds in small colonies in cut banks along roads and streams.

Bohemian Waxwing (*Bombycilla garrula*).—Irregular during autumn, winter and spring.

Cedar Waxwing (*Bombycilla cedrorum*).—Common migrant; occasionally nests, rarely winters.

Northern Shrike (*Lanius borealis*).—Common in winter.

White-rumped Shrike (*Lanius ludovicianus excubitorides*).—Breeds in most tree claims.

Red-eyed Vireo (*Vireosylva olivacea*).—A common summer resident.

Philadelphia Vireo (*Vireosylva philadelphica*).—A rare migrant.

Warbling Vireo (*Vireosylva gilva gilva*).—To be found in many groves in summer.

Bell's Vireo (*Vireo belli belli*).—Rare breeder; nest found by Rowley.

Blue-headed Vireo (*Lanivireo solitarius solitarius*).—A rare spring migrant.

Black and White Warbler (*Mniotilta varia*).—A very common migrant.

Orange-crowned Warbler (*Vermivora celata celata*).—A tolerably common, regular, migrant.

Tennessee Warbler (*Vermivora peregrina*).—A rare spring migrant.

Yellow Warbler (*Dendroica aestiva aestiva*).—This species can be found, throughout the breeding season, in almost every grove.

Black-throated Blue Warbler (*Dendroica caerulescens caerulescens*).—A fairly common migrant.

Myrtle Warbler (*Dendroica coronata*).—An abundant migrant.

Magnolia Warbler (*Dendroica magnolia*).—A common migrant.

Chestnut-sided Warbler (*Dendroica pennsylvanica*).—An uncommon migrant.

Bay-breasted Warbler (*Dendroica castanea*).—A rare migrant.

Black-poll Warbler (*Dendroica striata*).—An abundant migrant

Blackburnian Warbler (*Dendroica fusca*).—A rare spring migrant.

Black-throated Green Warbler (*Dendroica virens*).—An uncommon migrant.

Palm Warbler (*Dendroica palmarum palmarum*).—A common migrant.

Oven-bird (*Seiurus aurocapillus*).—A common summer resident.

Grinnell's Water-Thrush (*Seiurus noveboracensis notabilis*).—Common in spring and fall along the streams.

Mourning Warbler (*Oporornis philadelphia*).—A rare migrant; quite common in May, 1912.

Western Yellow-throat (*Geothlypis trichas occidentalis*).—A common migrant and fairly common breeder.

Yellow-breasted Chat (*Icteria virens virens*).—Breeds abundantly in the low willow thickets of the Missouri flood plains along old channels.

Wilson's Warbler (*Wilsonia pusilla pusilla*).—A common migrant.

Redstart (*Setophaga ruticilla*).—Abundant migrant and common breeder.

Pipit (*Anthus rubescens*).—A common migrant.

Sprague's Pipit (*Anthus spraguei*).—A tolerably common migrant.

Mockingbird (*Mimnus polyglottos polyglottos*).—An accidental spring visitor. One observed May 7, 1911.

Catbird (*Dumetella carolinensis*).—An abundant breeder in all thickets.

Brown Thrasher (*Toxostoma rufum*).—Plentiful in summer.

Western House Wren (*Troglodytes aedon parkmani*).—Breeds abundantly along the river and about the towns.

Winter Wren (*Nannus hiemalis*).—A rare migrant.

Short-billed Marsh Wren (*Cistothorus stellaris*).—A tolerably common migrant, and according to Agersborg, a rare summer resident.

Prairie Marsh Wren (*Telmatodytes palustris iliacus*).—A tolerably common summer resident.

Brown Creeper (*Certhia familiaris americana*).—Abundant winter and rare summer resident.

White-breasted Nuthatch (*Sitta carolinensis carolinensis*).—Tolerably common resident; abundant during the winter months, especially in Vermilion.

Red-breasted Nuthatch (*Sitta canadensis*).—A rare migrant.

Long-tailed Chickadee (*Penthestes atricapillus septentrionalis*).—A resident; in winter abundant.

Golden-crowned Kinglet (*Regulus satrapa satrapa*).—A tolerably common migrant and winter resident.

Ruby-crowned Kinglet (*Regulus calendula*).—Common in migrations and occasional in winter.

Townsend's Solitaire (*Myadestes townsendi*).—An accidental winter visitor. For an account of a straggler seen January 9, 1911, see The Auk, April, 1911, p. 270.

Wood Thrush (*Hylocichla mustelina*).—Breeds abundantly in Vermilion and in the wooded ravines.

Willow Thrush (*Hylocichla fuscescens salicicola*).—Common during migrations and rare during the breeding season.

Gray-cheeked Thrush (*Hylocichla aliciae aliciae*).—A common migrant.

Olive-backed Thrush (*Hylocichla ustulata swainsoni*).—An abundant migrant.

Hermit Thrush (*Hylocichla guttata pallasi*).—A rare migrant.

Robin (*Planesticus migratorius migratorius*).—An abundant resident. During the winter the robins form large flocks, which spend most of the time in the groves of the Missouri valley, where they feed extensively upon the berries of smilax.

Bluebird (*Sialia sialis sialis*).—A few pairs nest each year in this county.

THE SECOND ANNUAL MEETING OF THE WILSON ORNITHOLOGICAL CLUB was called to order at 9 a. m., in the Assembly Room of the New Morrison Hotel, Chicago, by President T. C. Stephens. The whole morning was devoted to the completion of the reorganization, as unfinished business from the last annual meeting, and with the consideration of new business. The roll call of members showed twenty-three members in attendance, of whom four were women. A long list of new members was acted upon favorably. Plans for an active campaign looking toward advertising the existence of this organization in the central districts of the country, and securing their coöperation were perfected, and committees appointed to carry the plans through.

After the convening of the members in the afternoon, and the completion of routine business, the following papers were presented:

Food of the Virginia Rail, by Alvin R. Cahn, of the University of Wisconsin.

Nest-Life of the Grosbeak, by Ira N. Gabrielson, of the Marshalltown, Iowa, public schools.

Birds from an Upstairs Window, by Mrs. O. M. Schantz, of Cicero, Ill.

Birds of Cedar Point, Ohio, and Vicinity—A Supplementary Report, by Lynds Jones, of Oberlin College.

Birds by the Wayside: I. India in January, by Miss Althea R. Sherman, of National, Iowa.

The evening session was given over to a report by District Inspector E. A. Cleasby upon the results of the Federal Migratory Bird Law, for the district of which Wisconsin is nearly the center. This report elicited a considerable discussion from members and others present.

At the Wednesday morning session the following papers were presented: June Birds of Laramie, Wyoming, by Rev. W. F. Henninger, of New Bremen, Ohio. Discouraging the English Sparrow, by Thomas H. Whitney, of Atlantic, Iowa. Field and Other Notes, by Rev. C. W. G. Eifrig, of Oak Park, Ill. (Illustrated.) A Nest Study of the Western Meadowlark, by Jay Kempkes, of Pella, Iowa. (Illustrated.) The Waterfowl of Illinois, by Gerard Alan Abbott, of Chicago. (Illustrated.) Birds of the Mid-Pacific, by Homer R. Dill. (Read by title.) Notes on the Raptorial Birds of Iowa, by B. H. Bailey. (Read by title.)

Dr. T. C. Stephens, of Morningside College, Sioux City, Iowa, was reëlected President, Mr. George L. Fordyce, of Youngstown, Ohio, reëlected Vice-President; Prof. Thos. L. Hankinson, of Charleston, Ill., was elected Secretary, as the former Secretary, Mr. O. M. Schantz, wished to be relieved; Mr. P. B. Coffin, 3232 Groveland Ave., Chicago, was reelected Treasurer; and the Executive Council appointed Gerard Alan Abott, 1543 E. 61st St., Chicago, Ill., Business Manager, and Lynds Jones, Oberlin, Ohio, Editor of the Wilson Bulleton.

This second annual meeting was a decided success, and it means that each gathering that is to be will increase in interest and value to those who attend. The field which we cover is large and the need for coöperation correspondingly great. Let everybody plan to be present at the third annual meeting.

The April First Bird Census

Youngstown, O., April 1, 1915, 8:30 a. m. to 5:30 p. m.—Partly cloudy, wind northwest; temperature, 34 to 38; territory covered Mill Creek Park, Lake Hamilton, Pine Lake and vicinity, Pied-billed Grebe, 1; Herring Gull, 2; Red-breasted Merganser, 1; Hooded Merganser, 20; Mallard, 10; Black Duck, 52; Green-winged Teal, 1; Pintail, 9; Redhead, 57; Canvas-back, 3; Scaup Duck, 9; Lesser Scaup Duck, 25; Ring-necked Duck, 2; Golden-eye, 17; Coot, 3; Killdeer, 9; Ruffed Grouse, 2; Marsh Hawk, 1; Sparrow Hawk, 1; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-bellied Woodpecker, 1; Northern Flicker, 2; Phoebe, 1; Blue Jay, 12; Crow, 32; Red-winged Blackbird, 32; Meadowlark, 5; Bronzed Grackle, 28; Goldfinch, 16; Tree Sparrow, 31; Slate-colored Junco, 2; Song Sparrow, 66; Cardinal, 21; Brown Creeper, 1; Red-breasted Nuthatch, 21; Tufted Titmouse, 12; Chickadee, 2; Robin, 48; Bluebird, 5. Total, 41 species, 568 individuals. George L. Fordyce and John P. Young.

On account of steady cold weather during the month of March, the migration of the birds was much later than usual and many species usually here on April 1st do not appear on this list.

Port Byron, Ill., April 4, 8 to 10:30 a. m. and 12:20 to 4 p. m.—Cloudy; ground bare and dry; wind south, brisk; temperature 40° to 60°. Bob-white, 12; Rough-legged Hawk, 1; Screech Owl, 2; Great Horned Owl, 4 (pair with two young ones, young half grown and sitting on edge of nest); Hairy Woodpecker, 7; Downy Woodpecker, 13; Red-bellied Woodpecker, 3; Prairie Horned Lark, 6; Blue Jay, 4; Crow, 9; Red-winged Blackbird, 30; Meadowlark, 15; Rusty Blackbird, 20; Bronzed Grackle, 14; Vesper Sparrow, 2; Tree Sparrow, 11; Field Sparrow, 1; Junco, 100; Song Sparrow, 9; Cardinal, 2; Brown Creeper, 1; White-breasted Nuthatch, 10; Tufted Titmouse, 2; Chickadee, 20; Robin, 65; Bluebird, 20. Total, 26 species, 383 individuals.—J. J. SCHAFER.

St. Johnsburg, Vt., April 1, 1915, 7 a. m. to 3 p. m.—Temperature 40°. Traces of snow on the ground. American Crow, 59; Bluebird, 4; American Robin, 3; Purple Finch, 2; Goldfinch, 12; Chickadees, 4; White-breasted Nuthatch, 1; Song Sparrow, 1.

Total, 8 species; 86 individuals.

INEZ A. HOWE.
MABEL A. SHIELDS.

THE WILSON BULLETIN

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Edited by **LYNDS JONES**

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EDITORIAL

The Editor will leave Oberlin on June 20, and will not return until September 15. Matters relating to the business of the Wilson Bulletin should be addressed to the Business Manager, Gerard Alan Abbott, 1543 E. 61st St., Chicago, Ill. Manuscript intended for publication may be addressed to the Editor at his Oberlin address, and it will be taken care of there.

As may be well known to many readers, the Editor will conduct a party of college student from Oberlin to Seattle, and from there down the coast of Washington from Cape Flattery to Moclips, which lies on the coast north of Gray's Harbor. The party leaves Oberlin on June 20, via the New York Central lines, reaching Seattle on June 24, via C. M. & St. Paul R. R. From Seattle the steamer Bellingham will convey the party to Neah Bay, and from there the trip down the coast will be made by launch and canoe with the coast Indians in charge. While this trip is made for the purpose of the study of the ecology of the region, the birds will receive their fair share of attention, and the islands included in the bird reserves will be visited.

Pressure of work has prevented any extended review of the literature which has come to the Editor's table, nor will it be possible to prepare such copy for the September issue. It is hoped that after the new school year begins this phase of the Bulletin may be resumed.

The absence of the Editor for the summer, and until the time for the issue of the September number, will cause a delay of two or three weeks in the appearance of the September number. The Editor begs for so much of the indulgence of the readers of the Bulletin.

The account of the second annual meeting of the Wilson Ornithological Club was crowded out of the March issue, where it should have appeared. It is presented at this late date as a matter of record. The time of the next meeting has not yet been decided upon.

CORRESPONDENCE

Editor, Wilson Bulletin.

DEAR SIR:—An article* in the last volume of your publication contains statements subject to correction. This article is a criticism of a review which the writer published of four papers on field observations upon the feeding of nestling birds, prepared by students of the Iowa Lakeside Laboratory.

The review to which Professor Stephens objects was published in the Auk for July, 1914 (pp. 420-421). It was intentionally made brief and mild in tone. Professor Stephens, however, refers to the "captious reviewer," a trite phrase that slips readily from the pen, but which in the present instance is unjustified. That the reviewer was reluctant to criticize the papers considered is shown by the fact that the earliest one was published two years before the review. The overconfidence exhibited by its writer in recording the identity of items of food fed to nestlings was thought to be only one of the defects to be expected in an early scientific essay. It was hoped that succeeding papers would be more conservative. However, the repetition of the same kind of work made me decide to protest.

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* Stephens, T. C., A Rejoinder. Wilson Bull. XXVI, No. 3, Sept. 1914, pp. 157-161.

In my review I made the following remark: "The flaw the reviewer would point out is perhaps due to over-enthusiasm on the part of the observers, or perhaps to failure to realize the difficulty of making exact identifications of insects." Professor Stephens' reply contains nothing to offset this impression. I warrant that if any of the persons concerned in making the studies of the food of nestlings in question will take the trouble to master any group of insects, he will no longer care to risk making specific identifications of small insects that are being fed to nestling birds.

The detailed nature of statements relating to the food given nestling catbirds by their parents is illustrated by the following quotation: "Among the 55 beetles fed were recognized may-beetles, click-beetles, tiger-beetles, water-beetles, and snout beetles of various species. The flies were mostly flesh flies, though house and stable flies were noted.*

Professor Stephens gives some explanations, which had they been in the original articles reviewed, would have greatly modified the impression produced. For instance he says regarding the observations on the catbird: "Flies swarmed about, ... and the observer in the blind could see the catbird capture and feed them to the young birds in the nest. A number of these flies were caught and submitted to an entomologist . . . . who named the flies as above" (p. 158). On this evidence, however, few would card-index the catbird as an enemy of any particular species among these flies; the chance for error is too great. There may have been a score of species of flies among those the birds were preying upon, and which particular ones were taken, could not have been accurately known. This instance as explained therefore does not constitute a definite record of catbirds feeding the identified species to their young. The paper reviewed, however, unqualifiedly states that among the insects fed were house and stable flies. The single instance of a mosquito being fed to the young by a catbird is made clear by a belated explanation, which should have been in the original article. It appears that a mosquito seen within the blind flew out and was snapped up by the bird. But this does not prepare the way for acceptance of the 65 records for the yellow warbler, as the circumstances could not have been the same. Even though this nest was only two feet away, the part of a mosquito that might protrude from a warbler's bill, in nine cases out of ten, probably would not suffice for certain identification at that distance.

Would Professor Stephens or his students on the basis of the nestling studies reported care formally to add the name of the cat-

* Wilson Bulletin, Vol. XXV, No. 4, Dec. 1913, pp. 179-180.

bird to the list of enemies of the house fly (*Musca domestica*) and the stable fly (*Stomoxys calcitrans*), both members of a family characterized by obscure markings and slight specific differences, and which are much resembled by various flies of at least three other families? Or would they list the yellow warbler as a predator upon mosquitos, on the strength of field observations only, when the number of species of small flies that superficially resemble mosquitos is legion? If so, their idea of scientific accuracy is unusual.

The writer in his original review tried to give a dispassionate criticism of a single unfortunate tendency of papers by less experienced investigators. This was intended only as advice for future caution and the general merit of the contributions was recognized. The more of such intimate studies of birds, the better, provided strict accuracy be kept in view.

Professor Stephens, however, adopts a controversial attitude in his rejoinder, which leads him to attribute to me sentiments that exist only in his mental conception of me. His remarks also contain unjustified conclusions resulting from ignorance, and innuendos, which probably would not have been made had he adopted disputation rather than controversy as his medium. A few examples follow:

1. "The food of nestling birds, a field which seems to be guarded zealously . . . . as the peculiar domain of the Biological Survey" (p. 157).

Nothing said in the review cited by Professor Stephens warrants this insinuation, nor does anything that the writer has said elsewhere. The Biological Survey has consistently encouraged and assisted the scientific study of the food of birds, wherever attempted.

2. The proposal "to tie bags over the anal orifices of nestling birds for the purpose of collecting the excreta will be highly amusing to anyone who has noticed young birds in the nest" (p. 160).

The proposal as stated may perhaps be amusing, but so far as I know Professor Stephens is the only one who has made it. The bags used by the writer have enveloped about three-quarters of the whole bodies of nestlings, being tied on over the breast and under the wings. All excrement voided was obtained, and the records of different nestlings kept separate by the aid of different colored tapes used on the bags. After a short time the parent birds did not pay much attention to the bags.

3. "Vigorous, though quibbling criticism" (p. 160).

No criticism can be called quibbling which definitely challenges the accuracy of a scientific article.

4. In two paragraphs, on page 160, Professor Stephens seeks to lessen the effect of my statements that "a great many birds feed

[their young] by regurgitation." He says in part "In our studies on the passerine birds we have succeeded in following the feeding of at least one out of a brood, from the moment it left the egg until it left the nest, in the cases of the yellow warbler, the catbird and the meadowlark . . . . and in each of these instances there has been no feeding by regurgitation. This is known simply from the fact that the food has been visible in the bird's bill."

The fact stated in the last sentence by no means disproves regurgitation. That food is visible in the bill is no proof that the gullet does not also contain food. The species above mentioned sometimes, at least, feed by regurgitation. In Mrs. Wheelock's article on "Regurgitative feeding of nestlings" in the Auk for January, 1905 (pp. 54-70), this capable field observer records more than thirty-five species of birds as feeding their young by regurgitation including all of the species Professor Stephens says were not observed to use this method.

Professor F. E. L. Beal has seen the following species feed their young by regurgitation: Rufous hummingbird, Arkansas goldfinch, California towhee, black-headed grosbeak, and the Eastern robin.

The writer knows from personal experience, that the cardinal, the rose-breasted grosbeak, the Eastern goldfinch, the English sparrow, and the red-eyed vireo feed their young at least in part by this method, the finches almost wholly. This is a longer list of birds than Professor Stephens claims acquaintance with and may show that my definition of limited experience in this field of work is quite different from his own, and that it does not justify the slur he pleases to record on page 160.

5. "The examination of a stomach will give, at best, the story of only three or four hours of the bird's life" (p. 160).

True, but when enough stomachs are collected, all of the hours will be typically represented.

6. "What [food] is unrecognizable cannot be taken into account, except as 'unknown,' or as 'miscellaneous.' If the tables or diagrams do not show this, must we not conclude that the writer has discarded the unidentified material?" (p. 161).

Professor Stephens will find entries under miscellaneous animal and miscellaneous vegetable food in practically every formal report by the Biological Survey upon the food of birds. None of the material is discarded.

7. "Too often the adherent of stomach examination publishes only his percentage results, without the detailed data upon which his percentages are based, which are necessary in a strictly scientific piece of work" (p. 101).

It is impracticable to publish detailed analyses of hundreds and

thousands of bird stomachs, and in fact impossible in Government documents. The data and the specimens upon which they are based, are kept on file in the Biological Survey, for inspection by anyone interested.

8. Relating to field observations, "it yields results with far greater accuracy than its critics are ready to admit" (p. 161).

The writer made no criticism of field observations but only of a certain phase of a few particular pieces of such work. Field work is necessary to round out the study of almost any biological problem. Its necessity, however, is no greater than the necessity that it should be accurate.

9. "It is not particularly reassuring to read the boast of having killed so many thousands of nestling birds in order to determine what their food has been."

Professor Stephens has never yet been compelled to read such a "boast," for the reason that nothing like it has been published.

It ill befits anyone interested in the scientific study of ornithology, and especially is this true of the President of a society whose sole object is the study of birds, to say or do anything that will render the collecting of specimens more difficult than it now is.* Those advocating all-inclusive protection have so far had their way that scientific collecting has been forbidden in some states and so hedged about with restrictions as to be impracticable in several others. The laws of some states are even so worded that no relief can be had when serious losses are suffered because of ravages by birds.

As to the effect of scientific collecting upon the bird population, it is undoubtedly true that more birds have been destroyed by single cold rain, or sleet storms, or other meteoric disturbances, than the total that have been killed by all of the scientific collectors in this country since the beginning.

10. "What is needed above all on the part of iconoclastic reviewers is more certainty and less quibbling, and more hard work in the field and laboratory that there may be developed an appreciation of the difficulties to be encountered in productive effort" (p 161).

Professor Stephens' controversial attitude is nowhere more manifest than here, and leads him far astray. The writer has spent practically all of the working days of the past ten years and more, in field and laboratory study of the food of birds, a total that many times exceeds that employed to the same end by Professor Stephens and his students.

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* In this connection see Grinnell, J., Conserve the Collector, Science, N. S. XLI, pp. 229-232, Feb. 12, 1915.

The degree of my certainty regarding questionable identifications in the papers I reviewed in this: I submitted the original statements of the authors reviewed, and my criticisms to my colleagues in economic ornithology and to various entomologists in Washington, and have repeated this process exhibiting Professor Stephens' remarks. Without exception these specialists have been of the opinion that positive identifications could not have been made under the conditions described for the cases mentioned in my review.

In conclusion I may say that my reviews in the Auk are initialled because that is the invariable custom in that journal, and not because of any desire for anonymity.

W. L. McATEE.

SCIENCE, ORNITHOLOGY, AND THE WAR.

Editor of The Wilson Bulletin:

While the daily newspapers, journals, and magazines of every description, as well as other prints — to say not a word of new books on the subject — teem with accounts of how the great conflict in Europe is affecting various interests and industries in this country, there is hardly a paragraph ever published which has anything to say of the influence which this terrible international imbroglio is exerting upon the various sciences, scientific institutions, literature, and upon scientific researchers of every department in nearly all parts of the world.

In so far as Europe is concerned, we hear a great deal in regard to how this stupendous struggle has crushed many trade interests; the enormous number of casualties that has thus far been the result of it; the diseases it has spread; the mental and physical defects which will result from it upon the offspring of generations of people to come, and, indeed, vast and far-reaching effects in many other directions too numerous to mention. All this is being incessantly and voluminously brought before us in the aforesaid manner, with rarely a word as to how science has thus far fared in it all.

The dollar and the base-ball being the two chief concerns in this country demanding the greatest amount of attention and cultivation — at least on the part of nine-tenths of the total population — it becomes a matter of no surprise that between these two engrossing pursuits the public cares not a rap for the fact that, since the first week in August, 1914, until the end of January, 1915, there had not been received at the library of the United States National Museum, and probably at the libraries of other institutions of the kind in this country, a single German or French scientific journal

of any importance devoted to biology. Especially are the elegant publications of this class coming from Germany missed, including those issuing contributions on systematic ornithology and avian anatomy. This is the more distressing and discouraging for the reason that we have so few publications of the kind in this country. In so far as some of the best German zoölogical publications are concerned, it would seem that they may not appear even in Germany until after the war is over. This statement is based upon personal experience, for at the commencement of the trouble in August last, I had an extensive monograph on the genus *Dendrocygna* and its allies, with many colored and plain plates, all up in type for the Zoölogische Jahrbücher; and I am now told that I will not see my separata of that production for some time.

In Hungary (Budapest) they have fared a little better; for among other publications, not only will *Aquila* (Vol. XXI) soon appear, but Americans having contributions in that issue are receiving their separata at the rate of *eight at a time* — all that the foreign postal authorities and the censors will pass "in one lot." This is remarkable when we come to know what they have to contend with in the Royal Hungarian Central Bureau for Ornithology. Not only are the premises and a part of the buildings, as the late Director Otto Herman wrote me, used for the accommodation of the wounded soldiers of the Austrian Army, but some of their scientific staff may have actually been sent to the front to serve as soldiers. Among these I may mention my friend, Dr. Koloman Lambrecht, of the Museum of Budapest, who has just received his degree of Doctor of Philosophy, and who was in the midst of his researches upon fossil birds, when he was selected for military duty. It is impossible to command language or words to express one's views upon such sacrifices as these, especially in the light of the senselessness of the present stupendous and unnecessary struggle, where kaisers and kings, in their war-game amusements, are allowing such material to take the chances of being sacrificed.

In England they are not faring much better in these respects, for not only have upwards of twenty or more zoölogists and botanists, members of the regular staff of the British Museum, gone to the front, but doubtless before this letter is up in type several of them may have been killed in the trenches. And well may we ask: to what end? The same bloody war-game of the crowned heads, — for the true principle of "patriotism" does not enter into it. Doctor Mitchell, Secretary of the London Zoölogical Society, writes me that they will have but very little money to spend in these days for plates or for lengthy contributions in *The Ibis* or in the publications of the Zoölogical Society; and Mr. John Henry Gurney, a

Corresponding Fellow of the A. O. U., in a letter to me under date of January 2, 1915, says: "I have not heard of any naturalists being killed in this terrible war, but have already lost several personal friends.

"I have two sons-in-law at the Front, one of whom is the son of E. G. Mead-Waldo, the well-known Ornithologist, but mercifully they have escaped so far. I have also two nephews out, and my son is with the Red Cross.

"In consequence of the War the sale of my book, "The Gannet," has completely stopped, and the only hope I have for it now is that the United States naturalists may buy some copies of the 140 still remaining unsold." *

It is profoundly to be hoped, quite apart from the casualties that may take place among scientists of all classes in this disastrous war, that no one of the number of the ornithologists of the various countries involved, whose names appear among our Honorary and Corresponding Fellows of the American Ornithologists' Union, will be called upon for army service and perhaps fall victims to the demand for their services in any such capacity. It is all very well if a naturalist be a commissioned officer in the army or navy to meet the duties devolving upon him in times of war, notwithstanding the danger in which his life may be placed or his researches interrupted; but this is vastly different from taking civilians who are men of science, of exceptional and unique value and actively at work upon scientific researches in institutions, out of their positions and making privates in the army of them, carrying them out on the firing line, to run the chance of being shot down alongside of Tom, Dick, or Harry, who, in many instances, may not be worth the cartridge it takes to kill him, and who often is a good riddance to the country that claims him as citizen. The world can not afford to do this; no nation ought to place the lives of such of her men of mark in jeopardy,—to place them where a single bullet, fired by some common soldier, may wipe out a life that it has required generations to produce, and whose works may be one of the torches of an advancing civilization. The very thought of such stupidity and senseless waste is in itself appalling and, to the cultured mind, almost paralyzing.

Quite apart from all this, it may be well to note that this war in Europe is having a very unlooked-for effect upon American science. Before this international catastrophe on the Continent, scien-

* Incidentally I may remark that I hope that those who have not already a copy of Mr. Gurney's valuable classic on the gannet will avail themselves of this opportunity to place one upon their shelves; it is a model volume on the life-history of the species.

tific productions of all kinds, including many in ornithology, were *printed* abroad — usually in Germany; and the plates illustrating them were engraved abroad — usually in Germany; while at the present time, all of such work is being done in our own country. This, in the end, may prove to be a great stimulation to American science, including all the departments of biology. As it now stands there is not money enough in *any* scientific institution in the United States to publish even a small part of the material presented in any particular instance. All of our great scientific institutions are *out of funds* and almost helpless in the matter of passing into print the results of the labors of men and women of science in this country. This is discouraging enough to those who are connected with institutions where the publication of their work is taken as a matter of fact, while it is enough to drive the private researcher out of his laboratory to seek other lines for his energy.

In a second interesting letter received from Mr. Gurney, under date of February 1st, 1915, he sends me some very curious notes on the effect of the heavy gun-firing on certain sea-birds.

"The naval fight in the North Sea on the 24th was audible in this country and Yorkshire.

"The distant concussion from the big guns had a curious effect on Pheasants, which in some woods adjoining the coast are said to be greatly perturbed.

"In the same way thousands of screaming Gulls (*Larus ridibundus*, *L. fuscus*, and *L. argentatus*) were tremendously upset by the so-called bombardment of Yarmouth, which by the way the Germans still persist in calling a fortified town.

"Another strange feature has been the washing up of numerous Guillemots, Razorbills and Scoter Ducks (*Uria troile*, *Alca torda*, *Oidemia nigra*) in a more or less moribund condition. These birds had come in contact with the oily petrol, which appears to be thrown off when a mine is discharged, and which rising to the surface, adheres to their plumage."

Faithfully yours,

R. W. SHUFELDT.

Washington, D. C., January 17, 1915.

FIELD NOTES

NESTING HABITS OF KENTUCKY WARBLER.

The interesting account, in your September issue, of the Kentucky Warbler nesting in northern Ohio, brings to mind an experience with a pair of Kentucky Warblers' nest building in the hill country at Cincinnati, Ohio, where it is a well-known bird.

In a bit of sloping woodland we spied a female Kentucky (*Oporornis formosus*) moving about in a suspicious manner. Quietly seating ourselves in a shielded spot we soon found she was indeed nest building.

A large fallen tree in the lowest part of the woodland served as her approach; here she would light, carrying by the top a dry beech leaf, the pink feet being the only visible portion of the bird. The length of the log was traversed and each trip she left it at the same point for the spot of her building.

In Chapman's book, "The Warblers of North America," page 240, is this statement referring to their nest building: "The male unquestionably aids his mate." Our pair was evidently an exception to the rule. As she worked the ringing song of the male could be heard in the distance, but when interest overcame his discretion and he alighted silently in a nearby tree, she stopped in her journey on the log. The very cessation of his song seemed to arouse her suspicions and she stood in a listening attitude; when he came near she grew tense and immovable as a statue until he flew away and his song was again heard in the distance; if he alighted on the log she routed him sharply. After these interruptions she went most leisurely about resuming her work. At no time did the male bring nesting material.

The nest was in the lower part of the wooded slope, which was almost free from shrubbery. The site selected was at the base of a very small horse chestnut, about two feet high.

The beech leaves were prettily placed in a cup form resembling the petals of a half blown rose; some of the leaves were placed lengthwise rather than tip down.

Unfortunately it was necessary to leave before the completion of the nest, which could not have been accomplished before the following day.

This incident occurred on the afternoon of May the seventh.

LUCY V. BAXTER COFFIN.

3232 Groveland Avenue, Chicago, Ill.

THE PROTHONOTARY WARBLER.

Several years ago, while taking a walk, as usual with bird glass in hand, a small bird, warbler size, caught my eye as it flitted about a bush by the side of the track. Its yellow color and the absence of distinct markings, provoked my curiosity, but a search, through both my memory and my books, revealed nothing that answered to the description unless it was the Prothonotary Warbler, and I scarcely dared call it that, for I could find no record of that bird nearer than the western part of the state. The section was swampy and near the margin of Bass Lake, about three miles from this place. I did not make a record of the date of this observance, but should say it was probably the spring of 1907.

June 12, 1910, Mrs. L. E. Parsons and I were at another part of the same swamp, when we found a bird that I recognized at once as the same as the one above referred to and which we both decided must be the Prothonotary Warbler. Again in 1912, June 9th, we were bird hunting in another section, three or four miles southwest of the first mentioned station, when we discovered another specimen of our warbler, and were this time quite sure we were near its nest, and watched it for some time, but could not locate the nest, though our bird was apparently bringing food. This was also a swampy spot, being at the base of a rocky bank where there were many springs. Since that time I have not again seen the bird, though I have been in the Bass Lake region many times. I shall watch for it again this year.

I note by the Wilson Bulletin that this warbler has been seen a number of times recently at Oberlin vicinity and at Huron. Undoubtedly it is working north and east in the state.

ORANGE COOK.

Chardon, Ohio.

THE BEWICK WREN.

On the 18th of April, last year, I was hunting near an old orchard, when a small wrenlike bird, flitting about in a rail fence, attracted my attention. I soon decided it was a stranger to me, for while its actions were decidedly wrenlike and there was the familiar barring on some parts of the bird, there was a longer and different shaped tail, and very distinct white spots on the outer feathers. After following the fence for ten or twelve rods, during which time it allowed me good opportunities for observing its actions and markings, it mounted to near the top of a small tree and gave me a specimen of its vocal powers. Its song was quite different from the House Wren, and to my taste, more pleasing.

A comparison of my findings with the book descriptions left no doubt that I had seen the Bewick Wren and heard its song. So far as I can learn this is also a new record for Geauga County.

ORANGE COOK.

Chardon, Ohio.

A BIRD STORY FROM SOUTH CAROLINA.

(Substantially as related to me by Nathaniel Heyward of Oakley.)

Scene: A rice plantation. Cast: Pickaninny, his mammy, crane (*Florida caerulea*), moonshine (*Ionornis martinica*). Business: An ancient muzzle-loading musket of erratic tendencies, the ammunition more dubious still.

A small negro boy climbed one day to the top of the levee in front of his cabin home. From this point he spied at the edge of the locker bay a crane and a moonshine side by side. Pickaninny at once crouched and skedaddled back down the slope to get the always-loaded family musket. Now he returned to the point of vantage, Mammy lending moral support from the cabin door. Pointing the musket over the levee, Pickaninny took long and careful aim, then pulled the trigger. Eventually the hammer snapped. Mammy now encouraged him by shouting, "Hol er steddy, son, til she go off." During this interval the crane became vexed at moonshine and struck viciously at it with his beak. At last the musket discharged with a resounding "pow" and the moonshine fell over dead. "Dar," said the crane, "I done kill dat moonshine."

W. L. M.

BIRDS OF 1915: TOO FEW AND TOO MANY.

Somewhere in the Mississippi Valley some one must have found the spring migration interesting. That it was not so in northeastern Iowa seems to have been due to the weather coming in wholesale sized installments. March, with continuously too low temperature, followed by a dry April, with high south winds and summer heat on several days, tended to hurry northward without loiterings the birds due the last of March and during April. The unseasonable warmth of April was followed by a wintry May. Seemingly as a result of these combinations very few of the birds that pass to more northerly breeding ranges were seen.

A comparison of the median dates for ten years of the first arrivals of twenty-four of our commonest birds with their dates for 1915 shows a retardation in the first half of the season, and an acceleration in the second half, except that the Killdeer and the

House Wren arrived on their middle dates. Fourteen of the earlier comers were from one to ten days behind the average dates for their first appearance. Of these the Sparrow Hawk was one day late, the Meadowlark and Mourning Dove were two days, and the Robin, Red-winged Blackbird and Flicker were three days late. On the other hand the warm weather of April pushed vegetation forward a week in advance of its normal growth and hastened the appearance of some of the birds from one to six days earlier than their average dates. The Brown Thrasher was one day, the Chipping Sparrow and Chimney Swift were two days, the Bobolink four days, and the Red-headed Woodpecker, Baltimore Oriole and Warbling Vireo were six days ahead of their median dates. To the cold weather that marked the month of May was due, very likely, the slight delay in the appearance of the Maryland Yellowthroat and Catbird. The middle date for both is May 10, but they were not seen until the following day.

It would be a pleasure to announce that our summer residents returned with undiminished ranks, but that was not the case. The greatest losses appear to have occurred in the Icteridae family. In this neighborhood Meadowlarks and Red-winged Blackbirds have far outnumbered other species, being more numerous here than in adjacent territory. They are now by no means scarce, but their numbers are greatly reduced without the reason for this diminution being clear. The same cannot be said of the Bobolink, which from an abundant species has become wholly wanting at present. If pleasant weather should ever come again it may bring out a few Bobolinks, which have sought sheltered places along with other missing species.

In this day of vanishing species it may seem absurd to say that of any there are too many. This expression refers to the viewpoint of the birds, not that of their human friends. There seems to be the possibility of making a place too attractive, and that by the increasing of the numbers of some species they become intolerable to their bird neighbors because of their warring on other's rights. In this year of almost world-wide warfare it is depressing to have one's mind constantly disturbed by the fighting of the birds. Their atrocities are authentic; even two Mourning Doves were seen fighting one day. The whole history of the causes of these forages and the bushwhacking of the birds may never be told, but it would make a ponderous volume if written. To-day (May 28) a Robin is building her third nest, her eggs in two nests having been destroyed by some bird, perhaps by House Wrens or Bronzed Grackles, which seem to be the worst egg-despoilers in our yard. It is not for the sake of food always, for frequently the shells are merely pierced.

For many years the Flicker did not increase in numbers, but for three seasons more have returned and excess in numbers betrays a serious fault in this good bird. Under these conditions he is guilty of nurturing family feuds and robs the nests of his fellows that have located near him. So fighting Flickers are adding to the sorrows of a battling world.

ALTHEA R. SHERMAN.

National, Iowa.

SOME PECULIARITIES OF THE 1915 SPRING MIGRATION IN NORTHERN OHIO.

If one ever had any doubts about the correlation of bird movements with waves of temperature the past migration season would furnish conclusive proof that there is. During the unseasonable warm wave of the second week of February the first migrants appeared, fully two weeks ahead of schedule. This was on February 13 to 15. The second wave was on February 19 to 21, the third not until March 13 to 14, the fourth on March 20 to 23, the fifth April 4 to 7, the sixth April 10 to 12, the seventh April 16 to 20, the eighth April 24 to 28, the ninth May 2 to 6, the tenth May 10 to 17, and the last, composed of a great host of migrating warblers and thrushes, May 21 to June 1. Most of these waves were unusually well-defined, but of course there were scattering records which could not be correlated with anything, as usual. These scattering records may be due to oversight because the individuals were few, or they may be due to the spilling over of a few individuals, the crest of whose wave of migration has halted a short distance to the south of this station.

The Ruddy Duck arrived 30 days before its schedule; the Cowbird 24 days; Red-headed Woodpecker 22 days; Yellow-legs 20 days; Henslow's Sparrow 19 days; Song Sparrow 18 days; Yellow-billed Cuckoo 17 days; Lincoln's Sparrow 16 days; Crow, Robin, Bluebird, Red-winged Blackbird, Ruby-throated Hummingbird, 15 days; Meadowlark, Bronzed Grackle, Cape May Warbler, Acadian Flycatcher, 13 days; Philadelphia Vireo and Red-eyed Vireo 12 days; Wood Pewee 11 days; Blackburnian Warbler, Whippoorwill, House Wren, and Rough-winged Swallow 10 days; Killdeer, Catbird, and Least Flycatcher 9 days; Orange-crowned Warbler, Nashville Warbler 8 days; Orchard Oriole, Water-Thrush, and Crested Flycatcher 7 days; and Spotted Sandpiper 6 days ahead of schedule. The average range either side of the median may be assumed to be five days, as it so works out from year to year.

The Swamp Sparrow was 23 days late; Fox Sparrow and Belted Kingfisher 17; Phœbe and Towhee 14; Northern Parula Warbler 11;

Vesper Sparrow 10; Hermit Thrush, Tree Swallow, and Nighthawk 9; Chipping Sparrow, Chestnut-sided Warbler, and Dickcissel 8; Woodcock and Brown Thrasher 7; and Mourning Warbler, Prairie Warbler, Canada Warbler, and Bay-breasted Warbler 6 days behind schedule.

There were thus 53 species which were more than five days either too early or too late in their arrivals, or almost 33% of the species involved. No account is here taken of the Water Birds, because there is much less certainty that accurate records were made of their movements. It is worth noting that most of the species which arrived ahead of their schedule belonged to the earlier parts of the migration, and that about half of those which arrived behind schedule belonged to the late waves.

The largest warbler and thrush migration usually occurs about the middle of May, but this year the heaviest movement was on the 21st and 22nd of May, with many of them remaining until the first of June, due to chilly and rainy or cloudy weather.

Vegetation was as far advanced in the middle of April as it usually is in the middle of May, but apparently there was not a correspondingly early development of insect life, although there were considerable numbers of insects associated with the foliage. While this unseasonable advance of vegetation was clearly not a purely local phenomenon, since much the same sequence of weather had prevailed southward into the Gulf states, it could hardly be expected that the birds which normally reach the southern border of the United States about the middle of April would have felt the pull of the unseasonable conditions in the Lake Region, and hence would not keep up with the vegetation and development of insect life. This would account for the marked paucity of birds during the warmth of the first two weeks of April when conditions seemed to be unusually favorable for birds of the warbler type.

We have to sorrowfully record the absence of Chickadee and Carolina Wren. The woods seem comparatively cheerless without them. No reason can be assigned for the disappearance of the Chickadee, and none that is satisfactory for that of the Carolina Wren. On the other hand, there have come to the region during the migrations Gadwall, Golden Plover, Bewick's Wren, and Mockingbird. Of course the Gadwall is found in the immediate vicinity of lake Erie, but it was never before recorded for the Oberlin Water Works reservoir. There were two Mockingbirds, one of them in full song, and they are still with us. A ten-day war on the English Sparrow has resulted in the presence of more native birds in the village.

LYNDS JONES.

ANOTHER BLOW—MIGRATORY BIRD LAW HIT HARD.

The Chicago Daily Law Bulletin of date January 20th, 1915, contains the announcement that Judge Treiber of the United States District Court for the Eastern District of Arkansas, declared the Migratory Bird law, passed by congress on March 4th, 1913, invalid. The learned judge in his decision, states that while he recognizes the force of the contention of the Federal authorities that only by national legislation can the migrating birds of the country be preserved, yet he says that this is not a matter for the courts, but for the people by amending the constitution of the United States.

The decision was rendered in the case of United States vs. Shauver, and is reported in 214 Federal Reporter, page 154. In this decision, Judge Trieber quotes and discusses many decisions pro and con, but all of them are clearly in line with his decision in the Shauver case, and a careful examination and study of his honor's decision convinces one that it is sound and that an appeal to the Supreme Court of the United States would avail nothing.

Article 5 of the Constitution of the United States provides that the constitution may be amended whenever two-thirds of both the house and the senate shall deem it necessary and shall propose amendments to the constitution or upon the application of the legislatures of two-thirds of the several states, congress shall call a convention for proposing amendments, which amendments in either case shall be valid to all intents and purposes when ratified by the legislatures of three-fourths of the several states or by conventions in three-fourths thereof as the one or the other mode of ratification may be proposed by congress.

The friends of the birds should stir up the members of congress from their respective districts and the same methods should be used with the representatives and state senators in the different states, and as the law of March 4th, 1913, declared invalid by Judge Trieber was undoubtedly the result of the same kind of agitation, there ought to be no difficulty in having an amendment providing in substance that birds and animals *ferae natura* are by the constitution given to and declared to be the property of the United States, and in this way obviate the objection raised by Judge Trieber that nothing in the present United States constitution waives the common law right of the different states to all birds and animals *ferae natura*.

Most of the laws passed by the different states for the protection of game, contain in some part thereof, the statement that birds and animals *ferae natura* are the property of the state, but as this is merely declaratory of the common law, it has very little force ex-

cept to make written, that which was unwritten under the common law.

Prepared and submitted by Messrs. Sumner C. Palmer, Attorney, and Gerard Alan Abbott, Investigator.

PUBLICATIONS RECEIVED.

Five papers by Arthur A. Allen, Ithaca, N. Y. From Bird-Lore: At Home with a Hell-Diver; On the Trail of the Evening Grosbeak. These are intimate studies of the species, profusely illustrated from photographs. The Paramo of Santa Isabel, from "The American Museum Journal," January, 1915, being an account of the author's experiences in this interesting region in South America, illustrated from photographs. Two from the Cornell Reading-Courses, Birds in their Relation to Agriculture. These papers are in furtherance of the commendable university extension work of the College of Agriculture of Cornell University. Other state universities might well introduce more of this sort of extension work in part repayment for the support given to these institution by the whole people in taxes.

U. S. Department of Agriculture publications: Some Common Birds Useful to the Farmer, by F. E. L. Beal, Farmer's Bulletin No. 630; Food of the Robins and Bluebirds of the United States, by F. E. L. Beal, Professional Paper No. 171; Preliminary Census of Birds of the United States, by Wells W. Cooke, No. 187; Bird Migration, by Wells W. Cooke, No. 185. These papers and many others are continued evidence that our government officials are not unmindful that the nation's welfare is bound up in the intelligence of the people who compose it.

Several papers from the pen of Henry Oldys, under the caption, "Current Items of Interest," published by the Audubon Society of the District of Columbia, deal with the general question of bird conservation.

A series of papers in the Outer's Book, by Dr. R. W. Shufeldt, "American Bob-whites and Quails," in the September, October, November, and December numbers. These papers deal with the descriptions of all of the species, with some life history notes.

Bird-Lore, August-September, 1914, to May-June, 1915.

Bluebird, September, 1914, to June, 1915.

Nature-Study Review, September, 1914, to May, 1915.

The Oregon Sportsman, September, 1914, to May, 1915.

The Condor, September-October, 1914, to May-June, 1915.

The Victorian Naturalist, September, 1914, to April, 1915.

The Guide to Nature, September, 1914, to May, 1915.

The Oriole, June and August, 1914.

Announcement

As I find it necessary to move my belongings to another locality, I'm endeavoring to make the task as light as possible. If any colleges, museums or individuals would be interested in acquiring certain specimens, I might arrange things to the mutual advantage of all parties concerned.

EDW. ARMSTRONG,
207 N. Michigan Ave. Chicago, Ill.

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